

Prof. Dr. Alfred Toth

**Grundlegung einer
qualitativen
Kommunikationstheorie.**

Bd. 4

Vorwort

Bekanntlich bildet die Kommunikationstheorie das Kerngebiet der Kybernetik der 60er Jahre. Das 1963 erschienene Buch von Shannon und Weaver ging von einer triadischen Kommunikationsrelation, bestehend aus Expedient (Sender bzw. Quelle), Kanal und Rezipient (Empfänger bzw. Senke) aus. Meyer-Eppler baute dann seine bekannte „Informationstheorie“ in der 2. Aufl. von 1969 auf dem Signalbegriff auf und bestimmte den Sender als logische Objekt- und den Empfänger als logische Subjektposition. Der Grund dafür ist viel trivialer als häufig angenommen wird: Es gibt eben emittierende (z.B. radioaktive), aber keine rezipierenden Objekte. Da es in der 2-wertigen aristotelischen Logik nur zwei Plätze, einen für das Objekt und einen für das Subjekt, gibt, werden einem belebten Subjekt als Sender daher beide logischen Positionen zugeschrieben. (Diese Annahme gipfelte später in Chomskys Sprachtheorie in der Konzeption eines „idealen Sprecher-Hörers“.) Aufgabe des Kanals ist es, die vom Objekt expedierten Signale zum Subjekt zu transportieren. Bense hatte bereits 1971 das Meyer-Epplersche signalitive Kommunikationsmodell übernommen und die logischen Positionen sowie den Kanal durch semiotische Kategorien ersetzt, indem er dem Sender den Objektbezug, dem Kanal den Mittelbezug und dem Empfänger den Interpretantenbezug zuwies. Auf der Basis der benseschen Semiotik ist es damit unmöglich, daß der das Subjekt semiotisch kodierende Interpretantenbezug als Sender fungiert.

Im vorliegenden und den folgenden Bänden konstruiere ich eine neue Kommunikationstheorie auf der Basis von vier statt drei Werten, so daß kein illegitimer logischer Kollaps von Objekt- und Subjektposition auftreten und der Interpretant als Sender fungieren kann. Dabei wird allerdings die triadische Struktur der informationstheoretischen Kommunikationstheorie beibehalten. Dies ergibt kombinatorisch jeweils 24 Basisschemata. Ferner wird die Permutation der Werte zugelassen. Dies führt zu einer sehr großen Anzahl von Kommunikationsrelationen, die selbst triadisch, d.h. vermittelt, präsentiert werden. Im Eingangskapitel reproduziere ich einen kürzlich veröffentlichten Aufsatz von mir, in dem die Isomorphie von Zahl, Zeichen und Objekt nachgewiesen wird. Die hier vorgelegte Kommunikationstheorie ist damit qualitativ und universell anwendbar. Ähnlich, wie ich es bereits in meiner „Theory of the Night“ (2016) mit Paaren von Kreationsschemata getan hatte, beschränke ich mich auch bei den Tripeln von Kommunikationsschemata nicht auf die rein quantitative Darstellung durch die natürlichen Zahlen,

sondern präsentiere die Ergebnisse in den selben 8 Zahlenarten, die ich bereits in meinem erwähnten Buche sowie zwei an es anschließenden Aufsätzen getan hatte. Folgende Übersicht orientiert über die in den einzelnen Bänden verwandten arithmetischen „Dialekte“:

- Bd. 1 Peano-Zahlen
- Bd. 2 Surreale Zahlen (Conway-Zahlen)
- Bd. 3 Eisenstein-Zahlen
- Bd. 4 Quadralektische Zahlen
- Bd. 5 Systemische Zahlen
- Bd. 6 Regionale Zahlen
- Bd. 7 Relationale Zahlen
- Bd. 8 Qualitative Zahlen

Dieses aus 8 Teilbänden bestehende Werk sei denjenigen unter meinen Lehrern und Fachkollegen gewidmet, denen mein eigenes Werk am meisten verdankt (in alphabetischer Ordnung): Prof. Dr. Max Bense (1910-1990), Prof. Dr. Gotthard Günther (1900-1984), Prof. Dr. Rudolf Kaehr (1942-2016) und meinem Freund Dr. Engelbert Kronthaler.

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Zahlen, Zeichen und Objekte

Bekanntlich hatte Bense bereits (1975, S. 168 ff.) gezeigt, daß das Zeichen sich mittels der Peano-Axiome einführen läßt, wobei die Initialzahl der Folge, d.h. entweder die 0 oder 1, als „Präsentant“ und der Nachfolger einer Peanozahl n ($n > 0$ bzw. $n > 1$) als „Repräsentant“ fungiert. Später (1986, S. 192 ff.) hatte Bense dann sogar aufgezeigt, daß sich die von Peirce bereits 1881 aufgestellten „Axioms of Number“ als eine Voläuferversion der Peano-Axiome interpretieren lassen und daß die peircesche Zeichenrelation sich ebenfalls mit Hilfe der Axioms of Number einführen läßt. Im Jahre 1981 führte Bense die Fundamentalkategorien in numerischer Notation als „Primzeichen“ bzw. „Zeichenzahlen“ ein (Bense 1981, S. 17 ff.)

Z (1., 2., 3.).

Wir haben damit

Zahl \cong Zeichen

1 \cong 1.

2 \cong 2.

3 \cong 3.

Damit bleibt die Frage nach dem Objekt, denn wir hatten ja in einer sehr langen Reihe von Arbeiten seit 2008 gezeigt, daß das Zeichen dem Objekt ebenfalls isomorph ist. Hier stellen sich vom Standpunkt der peirceschen Semiotik zwei Probleme:

1. Obwohl Bense das Zeichen ausdrücklich als „Metaobjekt“ eingeführt hatte (Bense 1967, S. 9), was also ein Objekt außerhalb des „Universums der Zeichen“ voraussetzt, spielt das Objekt in fast der gesamten späteren Semiotik keine Rolle mehr. Vielmehr ist die bensesche Semiotik als Pansemiotik im Sinne der Gültigkeit der modelltheoretischen Sätze der Extensivität, Monotonie und Abgeschlossenheit (vgl. Schwabhäuser 1971, S. 40) konzipiert, d.h. das Objekt taucht zwar ein „bezeichnetes Objekt“ bzw. als „Präsentamen“ auf, aber nicht als Objekt außerhalb des „semiotischen Raumes“. Eine Ausnahme bildet lediglich eine Konzeption, die Bense 1975 vorgelegt, später aber nicht mehr aufgenommen hatte: Dort wird das Objekt als 0-relationales Zeichen definiert und dem „semiotischen Raum“ ein „ontischer Raum“ gegenübergestellt. Allerdings

ist dieses „vorthetische“ oder „disponible“ Objekt damit aber auch eher ein ontologisches als ein ontisches Objekt, denn es ja bereits zur Zeichensetzung intendiert, also zu der sich bereits aus Bense (1967, S. 9) ableitbaren Funktion der „Metaobjektivation“

$\mu: O^\circ \rightarrow Z,$

worin allerdings also

$O^\circ \neq \Omega$

gilt, d.h. μ hat nichts mit der Dichotomie

$D = (\Omega, Z)$

zu tun.

Der Objektbegriff taucht explizit lediglich in der nur auf 1 Seite von Bense knapp skizzierten „Raumsemiotik“ auf (vgl. Bense/Walther 1973, S. 80). Dort wird das Objekt zwar in iconisch fungierende Systeme, indexikalisch fungierende Abbildungen und symbolisch fungierende Repertoires subkategorisiert, aber diese drei Arten von Objekten werden sogleich als Subzeichen des semiotischen Objektbezuges eingeführt. Einen Mittel- und einen Interpretantenbezug des „Raumzeichens“ gibt es nicht. Allerdings scheinen uns die drei von Bense unterschiedenen Objekte als „Fundamentalkategorien“ von Ω brauchbar, d.h. JEDES REALE, D.H. ONTISCHE OBJEKT IST ENTWEDER EIN SYSTEM, EINE ABBILDUNG ODER EIN REPERTOIRE. Da die „generative“ (Bense) Relation innerhalb der Trichotomien jeder Triade in Richtung maximaler Abstraktion verläuft (im Mittelbezug vom Quali- über das Sin- zum Legizeichen, im Objektbezug vom Icon über den Index zum Symbol, und im Interpretantenbezug von Rhema über das Dicient zum Argument, wollen wir als Symbole für die Fundamentalkategorien des Objektes

Sys := \square

Abb := \rightarrow

Rep = $—$

vereinbaren. Wir erhalten dann folgendes Isomorphieschema von Zahl, Zeichen und Objekt

Zahl		Zeichen		Objekt
1	\cong	1.	\cong	\square
2	\cong	2.	\cong	\rightarrow
3	\cong	3.	\cong	$—$

und damit natürlich

$$\mathbb{Z}_a \cong \mathbb{Z} \cong \Omega.$$

Vermutlich ist es sogar so, DAß DIESE DREI ENTITÄTEN, DIE ZAHL, DAS ZEICHEN UND DAS OBJEKT, DIE TIEFSTEN FUNDAMENTALEN BAUSTEINE EINES „UNIVERSUMS DES GEISTES“ DARSTELLEN.

Kommunikationstheorie

Wir gehen aus von der Menge von 4 Elementen

$$P = (\lfloor, \lrcorner, \ulcorner, \top),$$

die auf 3 Plätze distribuiert werden können. Dann gibt es genau 24 mögliche Kombinationen.

$$1 \quad (\lfloor \rightarrow \lrcorner \rightarrow \ulcorner)$$

$$2 \quad (\lfloor \rightarrow \lrcorner \rightarrow \top)$$

$$3 \quad (\lfloor \rightarrow \ulcorner \rightarrow \lrcorner)$$

$$4 \quad (\lfloor \rightarrow \ulcorner \rightarrow \top)$$

$$5 \quad (\lfloor \rightarrow \top \rightarrow \lrcorner)$$

$$6 \quad (\lfloor \rightarrow \top \rightarrow \ulcorner)$$

$$7 \quad (\lrcorner \rightarrow \lfloor \rightarrow \ulcorner)$$

$$8 \quad (\lrcorner \rightarrow \lfloor \rightarrow \top)$$

$$9 \quad (\lrcorner \rightarrow \ulcorner \rightarrow \lfloor)$$

$$10 \quad (\lrcorner \rightarrow \ulcorner \rightarrow \top)$$

$$11 \quad (\lrcorner \rightarrow \top \rightarrow \lfloor)$$

$$12 \quad (\lrcorner \rightarrow \top \rightarrow \ulcorner)$$

$$13 \quad (\ulcorner \rightarrow \lfloor \rightarrow \lrcorner)$$

$$14 \quad (\ulcorner \rightarrow \lfloor \rightarrow \top)$$

$$15 \quad (\ulcorner \rightarrow \lrcorner \rightarrow \lfloor)$$

$$16 \quad (\ulcorner \rightarrow \lrcorner \rightarrow \top)$$

$$17 \quad (\ulcorner \rightarrow \top \rightarrow \lfloor)$$

$$18 \quad (\ulcorner \rightarrow \top \rightarrow \lrcorner)$$

$$19 \quad (\top \rightarrow \lfloor \rightarrow \lrcorner)$$

- 20 $(\top \rightarrow L \rightarrow \Gamma)$
- 21 $(\top \rightarrow \perp \rightarrow L)$
- 22 $(\top \rightarrow \perp \rightarrow \Gamma)$
- 23 $(\top \rightarrow \Gamma \rightarrow L)$
- 24 $(\top \rightarrow \Gamma \rightarrow \perp)$

Nach Kanälen geordnet:

- 7 $(\perp \rightarrow L \rightarrow \Gamma)$
- 8 $(\perp \rightarrow L \rightarrow \top)$
- 13 $(\Gamma \rightarrow L \rightarrow \perp)$
- 14 $(\Gamma \rightarrow L \rightarrow \top)$
- 19 $(\top \rightarrow L \rightarrow \perp)$
- 20 $(\top \rightarrow L \rightarrow \Gamma)$

- 1 $(L \rightarrow \perp \rightarrow \Gamma)$
- 2 $(L \rightarrow \perp \rightarrow \top)$
- 15 $(\Gamma \rightarrow \perp \rightarrow L)$
- 16 $(\Gamma \rightarrow \perp \rightarrow \top)$
- 21 $(\top \rightarrow \perp \rightarrow L)$
- 22 $(\top \rightarrow \perp \rightarrow \Gamma)$

- 3 $(L \rightarrow \Gamma \rightarrow \perp)$
- 4 $(L \rightarrow \Gamma \rightarrow \top)$
- 9 $(\perp \rightarrow \Gamma \rightarrow L)$
- 10 $(\perp \rightarrow \Gamma \rightarrow \top)$
- 23 $(\top \rightarrow \Gamma \rightarrow L)$

24 $(\top \rightarrow \Gamma \rightarrow \perp)$

5 $(L \rightarrow \top \rightarrow \perp)$

6 $(L \rightarrow \top \rightarrow \Gamma)$

11 $(\perp \rightarrow \top \rightarrow L)$

12 $(\perp \rightarrow \top \rightarrow \Gamma)$

17 $(\Gamma \rightarrow \top \rightarrow L)$

18 $(\Gamma \rightarrow \top \rightarrow \perp)$

1. Qualitative Kanäle

1.1. Chreode = $(\perp \rightarrow L \rightarrow \Gamma)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \perp \rightarrow \top)$
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$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \Gamma \rightarrow \perp)$
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$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \Gamma \rightarrow \top)$
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$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\begin{array}{c} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow L) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \top) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \perp \rightarrow L)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)$$

$$(\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)$$

$$(\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)$$

$$(\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)$$

$$(\perp \rightarrow \perp \rightarrow \Gamma)$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \perp \rightarrow L)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow L)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\begin{array}{l} (\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\neg \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\neg \rightarrow \Gamma \rightarrow L) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \perp \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \perp \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow \perp) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \perp \rightarrow \neg) \rightarrow (\neg \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \perp \rightarrow \neg) \rightarrow (\neg \rightarrow L \rightarrow \Gamma) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \bot \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \Gamma \rightarrow \bot)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \bot) \rightarrow (\perp \rightarrow L \rightarrow \bot)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \bot) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \bot) \rightarrow (\perp \rightarrow \bot \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \bot) \rightarrow (\perp \rightarrow \bot \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \bot) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \top)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\top \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\top \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

1.2. Chreode = ($\perp \rightarrow L \rightarrow \top$)

($L \rightarrow \perp \rightarrow \Gamma$) \rightarrow ($L \rightarrow \perp \rightarrow \top$)

($\perp \rightarrow L \rightarrow \top$)

($L \rightarrow \perp \rightarrow \Gamma$) \rightarrow ($L \rightarrow \Gamma \rightarrow \perp$)

($\perp \rightarrow L \rightarrow \top$)

($L \rightarrow \perp \rightarrow \Gamma$) \rightarrow ($L \rightarrow \Gamma \rightarrow \top$)

($\perp \rightarrow L \rightarrow \top$)

($L \rightarrow \perp \rightarrow \Gamma$) \rightarrow ($L \rightarrow \top \rightarrow \perp$)

($\perp \rightarrow L \rightarrow \top$)

($L \rightarrow \perp \rightarrow \Gamma$) \rightarrow ($L \rightarrow \top \rightarrow \Gamma$)

($\perp \rightarrow L \rightarrow \top$)

($L \rightarrow \perp \rightarrow \Gamma$) \rightarrow ($\perp \rightarrow L \rightarrow \Gamma$)

($\perp \rightarrow L \rightarrow \top$)

($L \rightarrow \perp \rightarrow \Gamma$) \rightarrow ($\perp \rightarrow L \rightarrow \top$)

($\perp \rightarrow L \rightarrow \top$)

($L \rightarrow \perp \rightarrow \Gamma$) \rightarrow ($\perp \rightarrow \Gamma \rightarrow \perp$)

($\perp \rightarrow L \rightarrow \top$)

$$\begin{array}{l} (\text{L} \rightarrow \text{J} \rightarrow \Gamma) \rightarrow (\text{J} \rightarrow \Gamma \rightarrow \top) \\ (\text{J} \rightarrow \text{L} \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \text{J} \rightarrow \Gamma) \rightarrow (\text{J} \rightarrow \top \rightarrow \text{L}) \\ (\text{J} \rightarrow \text{L} \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \text{J} \rightarrow \Gamma) \rightarrow (\text{J} \rightarrow \top \rightarrow \Gamma) \\ (\text{J} \rightarrow \text{L} \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \text{J} \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \text{L} \rightarrow \text{J}) \\ (\text{J} \rightarrow \text{L} \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \text{J} \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \text{L} \rightarrow \top) \\ (\text{J} \rightarrow \text{L} \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \text{J} \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \text{J} \rightarrow \text{L}) \\ (\text{J} \rightarrow \text{L} \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \text{J} \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \text{J} \rightarrow \top) \\ (\text{J} \rightarrow \text{L} \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \text{J} \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \text{L}) \\ (\text{J} \rightarrow \text{L} \rightarrow \top) \end{array}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow J)}{(L \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow J)}{(L \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow L)}{(L \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(L \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow J)}{(L \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow J)}{(L \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow \top)}{(J \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow J)}{(J \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(J \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \Gamma)}{(J \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \top)}{(J \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow L)}{(J \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow \top)}{(J \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \top \rightarrow L)}{(J \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow J)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow J)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(J \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow J \rightarrow L)}{(J \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(J \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(J \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow J)}{(J \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \Gamma \rightarrow \top)}{(J \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \top \rightarrow J)}{(J \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(J \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(J \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}{(J \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(J \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow \top \rightarrow J)}{(J \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\top \rightarrow L \rightarrow J)}{(J \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(J \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\top \rightarrow J \rightarrow L)}{(J \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(J \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow \neg)}{(\perp \rightarrow L \rightarrow \neg)}$$

$$(L \rightarrow \Gamma \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \top) \rightarrow (L \rightarrow L \rightarrow \top)$$

$$(L \rightarrow \Gamma \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \top) \rightarrow (L \rightarrow L \rightarrow \top)$$

$$(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \top) \rightarrow (L \rightarrow L \rightarrow \top)$$

$$(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)$$

$$(L \rightarrow \Gamma \rightarrow \top) \rightarrow (L \rightarrow L \rightarrow \top)$$

$$(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \top) \rightarrow (L \rightarrow L \rightarrow \top)$$

$$(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)$$

$$(L \rightarrow \Gamma \rightarrow \top) \rightarrow (L \rightarrow L \rightarrow \top)$$

$$(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \top) \rightarrow (L \rightarrow L \rightarrow \top)$$

$$(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \top) \rightarrow (L \rightarrow L \rightarrow \top)$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (L \rightarrow L \rightarrow \Gamma)}{(L \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow L \rightarrow \neg)}{(J \rightarrow L \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow L)}{(J \rightarrow L \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow \neg)}{(J \rightarrow L \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow L)}{(J \rightarrow L \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)}{(J \rightarrow L \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(J \rightarrow L \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(J \rightarrow L \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(J \rightarrow L \rightarrow \neg)}$$

$$(L \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow L \rightarrow \top)$$

$$(L \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top)$$

$$(L \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top)$$

$$(L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top)$$

$$(L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow L \rightarrow \top)$$

$$(L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top)$$

$$(L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(\perp \rightarrow L \rightarrow \top)$$

$$(L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top)$$

$$\frac{(L \rightarrow \neg \rightarrow \perp) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \neg)}{(\perp \rightarrow L \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \neg)}{(\perp \rightarrow L \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \neg \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \neg \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \neg)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(L \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow L \rightarrow \Gamma) \rightarrow (L \rightarrow L \rightarrow \top)}{(L \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow L \rightarrow \Gamma) \rightarrow (L \rightarrow \Gamma \rightarrow L)}{(L \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow L \rightarrow \Gamma) \rightarrow (L \rightarrow \Gamma \rightarrow \top)}{(L \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow L \rightarrow \Gamma) \rightarrow (L \rightarrow \top \rightarrow L)}{(L \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow L \rightarrow \Gamma) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \top \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \top)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \top)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \top) \\ (\perp \rightarrow L \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow L \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow L \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L) \\ (\perp \rightarrow L \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow L \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow L \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \Gamma) \\ (\perp \rightarrow L \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow L \rightarrow \top) \end{array}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow \top)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \top)$$

$$(\perp \rightarrow L \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)$$

$$(\perp \rightarrow L \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \top)$$

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$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \top \rightarrow L)$$

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$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \top \rightarrow \perp)$$

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$$(\perp \rightarrow \top \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \top)$$

$$(\perp \rightarrow L \rightarrow \top)$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(\neg \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow L)}{(\neg \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma)}{(\neg \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\neg \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\neg \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\neg \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\neg \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\neg \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow L \rightarrow \top)}$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

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$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\perp \rightarrow \perp \rightarrow \top)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow L \rightarrow \top)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \perp \rightarrow L)$$

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$$(\perp \rightarrow L \rightarrow \top)$$

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$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)$$

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$$(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top)$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \top)}$$

$$\begin{array}{l}
 (\Gamma \rightarrow \Delta \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \Delta) \\
 (\Delta \rightarrow L \rightarrow \top)
 \end{array}$$

$$\begin{array}{l}
 (\Gamma \rightarrow \Delta \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L) \\
 (\Delta \rightarrow L \rightarrow \top)
 \end{array}$$

$$\begin{array}{l}
 (\Gamma \rightarrow \Delta \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \Delta) \\
 (\Delta \rightarrow L \rightarrow \top)
 \end{array}$$

$$\begin{array}{l}
 (\Gamma \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \Delta) \\
 (\Delta \rightarrow L \rightarrow \top)
 \end{array}$$

1.3. Chreode = $(\Gamma \rightarrow L \rightarrow \perp)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \perp \rightarrow \top)$

$(\Gamma \rightarrow L \rightarrow \perp)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \Gamma \rightarrow \perp)$

$(\Gamma \rightarrow L \rightarrow \perp)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \Gamma \rightarrow \top)$

$(\Gamma \rightarrow L \rightarrow \perp)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \top \rightarrow \perp)$

$(\Gamma \rightarrow L \rightarrow \perp)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \top \rightarrow \Gamma)$

$(\Gamma \rightarrow L \rightarrow \perp)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)$

$(\Gamma \rightarrow L \rightarrow \perp)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \top)$

$(\Gamma \rightarrow L \rightarrow \perp)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)$

$(\Gamma \rightarrow L \rightarrow \perp)$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow \top) \\ (\Gamma \rightarrow L \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow J) \\ (\Gamma \rightarrow L \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow \Gamma) \\ (\Gamma \rightarrow L \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \Gamma) \\ (\Gamma \rightarrow L \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \top) \\ (\Gamma \rightarrow L \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow L) \\ (\Gamma \rightarrow L \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow \top) \\ (\Gamma \rightarrow L \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \top \rightarrow L) \\ (\Gamma \rightarrow L \rightarrow J)$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow J)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow J)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow J \rightarrow L)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow J)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \top \rightarrow J)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)$$

$$(\Gamma \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \top)$$

$$(\Gamma \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)$$

$$(\Gamma \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)$$

$$(\Gamma \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)$$

$$(\Gamma \rightarrow L \rightarrow \perp)$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \neg)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow \neg)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow L \rightarrow \neg)$$

$$(\Gamma \rightarrow L \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow \neg)$$

$$(\Gamma \rightarrow L \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)$$

$$(\Gamma \rightarrow L \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow J)$$

$$(\Gamma \rightarrow L \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)$$

$$(\Gamma \rightarrow L \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow J)$$

$$\frac{(L \rightarrow \top \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow \top \rightarrow J) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow \top \rightarrow J) \rightarrow (\Gamma \rightarrow \top \rightarrow J)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow \top \rightarrow J) \rightarrow (\top \rightarrow L \rightarrow J)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow \top \rightarrow J) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow \top \rightarrow J) \rightarrow (\top \rightarrow J \rightarrow L)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow \top \rightarrow J) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow \top \rightarrow J) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow \Gamma \rightarrow J)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow L \rightarrow \neg)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow \Gamma \rightarrow \neg)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow \neg \rightarrow L)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow \neg \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(\Gamma \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

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$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

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$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\begin{array}{c} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow L) \\ (\Gamma \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma) \\ (\Gamma \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow L) \\ (\Gamma \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp) \\ (\Gamma \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top) \\ (\Gamma \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow L) \\ (\Gamma \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma) \\ (\Gamma \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \perp) \\ (\Gamma \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \top) \\ (\Gamma \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow L) \\ (\Gamma \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\Gamma \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L) \\ (\Gamma \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\Gamma \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp) \\ (\Gamma \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma) \\ (\Gamma \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L) \\ (\Gamma \rightarrow L \rightarrow \perp) \end{array}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)$$

$$(\Gamma \rightarrow \perp \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

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$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)$$

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$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \perp \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)$$

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$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \perp \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \perp)$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

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$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

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$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\neg \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\neg \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\neg \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\Gamma \rightarrow L \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(\Gamma \rightarrow L \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)$$

$$(\Gamma \rightarrow L \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(\Gamma \rightarrow L \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow L \rightarrow \perp)$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\Gamma \rightarrow L \rightarrow \perp)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(\Gamma \rightarrow L \rightarrow \perp)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \top)$$

$$(\Gamma \rightarrow L \rightarrow \perp)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \perp)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \top)$$

$$(\Gamma \rightarrow L \rightarrow \perp)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \perp)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow L \rightarrow \perp)$$

$$(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(\Gamma \rightarrow L \rightarrow \perp)$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\begin{array}{c}
 (\top \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\
 (\Gamma \rightarrow L \rightarrow \perp)
 \end{array}$$

$$\begin{array}{c}
 (\top \rightarrow \perp \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L) \\
 (\Gamma \rightarrow L \rightarrow \perp)
 \end{array}$$

$$\begin{array}{c}
 (\top \rightarrow \perp \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\
 (\Gamma \rightarrow L \rightarrow \perp)
 \end{array}$$

$$\begin{array}{c}
 (\top \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\
 (\Gamma \rightarrow L \rightarrow \perp)
 \end{array}$$

1.4. Chreode = $(\Gamma \rightarrow L \rightarrow \top)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \perp \rightarrow \top)$
 $(\Gamma \rightarrow L \rightarrow \top)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \Gamma \rightarrow \perp)$
 $(\Gamma \rightarrow L \rightarrow \top)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \Gamma \rightarrow \top)$
 $(\Gamma \rightarrow L \rightarrow \top)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \top \rightarrow \perp)$
 $(\Gamma \rightarrow L \rightarrow \top)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \top \rightarrow \Gamma)$
 $(\Gamma \rightarrow L \rightarrow \top)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)$
 $(\Gamma \rightarrow L \rightarrow \top)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \top)$
 $(\Gamma \rightarrow L \rightarrow \top)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)$
 $(\Gamma \rightarrow L \rightarrow \top)$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow J)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow J)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow J)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\perp \rightarrow J \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\perp \rightarrow J \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow J)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \top \rightarrow J)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow \top \rightarrow J)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\top \rightarrow L \rightarrow J)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\top \rightarrow J \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow L \rightarrow \neg)$$

$$(\Gamma \rightarrow L \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow \neg)$$

$$(\Gamma \rightarrow L \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)$$

$$(\Gamma \rightarrow L \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow J)$$

$$(\Gamma \rightarrow L \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)$$

$$(\Gamma \rightarrow L \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \neg)$$

$$\frac{(L \rightarrow \top \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow J) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow J) \rightarrow (\Gamma \rightarrow \top \rightarrow J)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow J) \rightarrow (\top \rightarrow L \rightarrow J)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow J) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow J) \rightarrow (\top \rightarrow J \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow J) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow J) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \top)$$

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$$(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)$$

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$$(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

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$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

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$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

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$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \neg)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \neg)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \neg)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \neg)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \neg)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \neg)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow \neg)}{(\Gamma \rightarrow L \rightarrow \neg)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \neg)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\begin{array}{c}
 (\top \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\
 (\Gamma \rightarrow L \rightarrow \top)
 \end{array}$$

$$\begin{array}{c}
 (\top \rightarrow \perp \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L) \\
 (\Gamma \rightarrow L \rightarrow \top)
 \end{array}$$

$$\begin{array}{c}
 (\top \rightarrow \perp \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\
 (\Gamma \rightarrow L \rightarrow \top)
 \end{array}$$

$$\begin{array}{c}
 (\top \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\
 (\Gamma \rightarrow L \rightarrow \top)
 \end{array}$$

1.5. Chreode = $(\neg \rightarrow L \rightarrow J)$

$(L \rightarrow J \rightarrow \Gamma) \rightarrow (L \rightarrow J \rightarrow \neg)$

$(\neg \rightarrow L \rightarrow J)$

$(L \rightarrow J \rightarrow \Gamma) \rightarrow (L \rightarrow \Gamma \rightarrow J)$

$(\neg \rightarrow L \rightarrow J)$

$(L \rightarrow J \rightarrow \Gamma) \rightarrow (L \rightarrow \Gamma \rightarrow \neg)$

$(\neg \rightarrow L \rightarrow J)$

$(L \rightarrow J \rightarrow \Gamma) \rightarrow (L \rightarrow \neg \rightarrow J)$

$(\neg \rightarrow L \rightarrow J)$

$(L \rightarrow J \rightarrow \Gamma) \rightarrow (L \rightarrow \neg \rightarrow \Gamma)$

$(\neg \rightarrow L \rightarrow J)$

$(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow L \rightarrow \Gamma)$

$(\neg \rightarrow L \rightarrow J)$

$(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow L \rightarrow \neg)$

$(\neg \rightarrow L \rightarrow J)$

$(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow L)$

$(\neg \rightarrow L \rightarrow J)$

$$(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow \top) \\ (\top \rightarrow L \rightarrow J)$$

$$(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow L) \\ (\top \rightarrow L \rightarrow J)$$

$$(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow \Gamma) \\ (\top \rightarrow L \rightarrow J)$$

$$(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow J) \\ (\top \rightarrow L \rightarrow J)$$

$$(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top) \\ (\top \rightarrow L \rightarrow J)$$

$$(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow L) \\ (\top \rightarrow L \rightarrow J)$$

$$(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow \top) \\ (\top \rightarrow L \rightarrow J)$$

$$(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L) \\ (\top \rightarrow L \rightarrow J)$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow J)}{(\top \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow J)}{(\top \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\top \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow L)}{(\top \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(\top \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\top \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow J)}{(\top \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow J)}{(\top \rightarrow L \rightarrow J)}$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow \top) \\ (\top \rightarrow L \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow J) \\ (\top \rightarrow L \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow \Gamma) \\ (\top \rightarrow L \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \Gamma) \\ (\top \rightarrow L \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \top) \\ (\top \rightarrow L \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow L) \\ (\top \rightarrow L \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow \top) \\ (\top \rightarrow L \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \top \rightarrow L) \\ (\top \rightarrow L \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \top \rightarrow \Gamma) \\ (\top \rightarrow L \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow J) \\ (\top \rightarrow L \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top) \\ (\top \rightarrow L \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow J \rightarrow L) \\ (\top \rightarrow L \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow J \rightarrow \top) \\ (\top \rightarrow L \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L) \\ (\top \rightarrow L \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow J) \\ (\top \rightarrow L \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow J) \\ (\top \rightarrow L \rightarrow J)$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\top \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow J \rightarrow L)}{(\top \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(\top \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\top \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow J)}{(\top \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \Gamma \rightarrow \top)}{(\top \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \top \rightarrow J)}{(\top \rightarrow L \rightarrow J)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(\top \rightarrow L \rightarrow J)}$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (J \rightarrow L \rightarrow \Gamma) \\ (\neg \rightarrow L \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (J \rightarrow L \rightarrow \neg) \\ (\neg \rightarrow L \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow L) \\ (\neg \rightarrow L \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow \neg) \\ (\neg \rightarrow L \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow L) \\ (\neg \rightarrow L \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow \Gamma) \\ (\neg \rightarrow L \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow J) \\ (\neg \rightarrow L \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow \neg) \\ (\neg \rightarrow L \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L) \\ (\sqcap \rightarrow L \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow \top) \\ (\sqcap \rightarrow L \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow \top \rightarrow L) \\ (\sqcap \rightarrow L \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow \top \rightarrow J) \\ (\sqcap \rightarrow L \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\sqcap \rightarrow L \rightarrow J) \\ (\sqcap \rightarrow L \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\sqcap \rightarrow L \rightarrow \top) \\ (\sqcap \rightarrow L \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\sqcap \rightarrow J \rightarrow L) \\ (\sqcap \rightarrow L \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\sqcap \rightarrow J \rightarrow \top) \\ (\sqcap \rightarrow L \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\sqcap \rightarrow \Gamma \rightarrow L) \\ (\sqcap \rightarrow L \rightarrow J)$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\neg \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow \perp)}{(\neg \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(\neg \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\neg \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(\neg \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\neg \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\neg \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \perp)}{(\neg \rightarrow L \rightarrow \perp)}$$

$$(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma) \\ (\perp \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top) \\ (\perp \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L) \\ (\perp \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow L \rightarrow \perp)$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\top \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\top \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\top \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\top \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\top \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(\top \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\top \rightarrow L \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(\top \rightarrow L \rightarrow \perp)}$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow L)$$

$$(\neg \rightarrow L \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow \neg)$$

$$(\neg \rightarrow L \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow L)$$

$$(\neg \rightarrow L \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)$$

$$(\neg \rightarrow L \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow J)$$

$$(\neg \rightarrow L \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)$$

$$(\neg \rightarrow L \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)$$

$$(\neg \rightarrow L \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow \neg)$$

$$(\neg \rightarrow L \rightarrow J)$$

$$(L \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(\top \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\top \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(\top \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)$$

$$(\top \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)$$

$$(\top \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(\top \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow L)$$

$$(\top \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\top \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow L \rightarrow \Gamma)$$

$$(\lrcorner \rightarrow L \rightarrow \lrcorner)$$

$$(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow L \rightarrow \top)$$

$$(\lrcorner \rightarrow L \rightarrow \lrcorner)$$

$$(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow L)$$

$$(\lrcorner \rightarrow L \rightarrow \lrcorner)$$

$$(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow \top)$$

$$(\lrcorner \rightarrow L \rightarrow \lrcorner)$$

$$(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \top \rightarrow L)$$

$$(\lrcorner \rightarrow L \rightarrow \lrcorner)$$

$$(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \top \rightarrow \Gamma)$$

$$(\lrcorner \rightarrow L \rightarrow \lrcorner)$$

$$(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \lrcorner)$$

$$(\lrcorner \rightarrow L \rightarrow \lrcorner)$$

$$(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)$$

$$(\lrcorner \rightarrow L \rightarrow \lrcorner)$$

$$\begin{array}{l} (\text{L} \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \text{L}) \\ (\neg \rightarrow \text{L} \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \neg) \\ (\neg \rightarrow \text{L} \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow \text{L}) \\ (\neg \rightarrow \text{L} \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow \perp) \\ (\neg \rightarrow \text{L} \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow \text{L} \rightarrow \perp) \\ (\neg \rightarrow \text{L} \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow \text{L} \rightarrow \Gamma) \\ (\neg \rightarrow \text{L} \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow \perp \rightarrow \text{L}) \\ (\neg \rightarrow \text{L} \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma) \\ (\neg \rightarrow \text{L} \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (L \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L) \\ (\top \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (L \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\ (\top \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \top) \\ (\top \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L) \\ (\top \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top) \\ (\top \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow L) \\ (\top \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma) \\ (\top \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp) \\ (\top \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top) \\ (\lrcorner \rightarrow L \rightarrow \lrcorner) \end{array}$$

$$\begin{array}{l} (\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \lrcorner \rightarrow L) \\ (\lrcorner \rightarrow L \rightarrow \lrcorner) \end{array}$$

$$\begin{array}{l} (\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \lrcorner \rightarrow \top) \\ (\lrcorner \rightarrow L \rightarrow \lrcorner) \end{array}$$

$$\begin{array}{l} (\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L) \\ (\lrcorner \rightarrow L \rightarrow \lrcorner) \end{array}$$

$$\begin{array}{l} (\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \lrcorner) \\ (\lrcorner \rightarrow L \rightarrow \lrcorner) \end{array}$$

$$\begin{array}{l} (\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow L \rightarrow \lrcorner) \\ (\lrcorner \rightarrow L \rightarrow \lrcorner) \end{array}$$

$$\begin{array}{l} (\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow L \rightarrow \Gamma) \\ (\lrcorner \rightarrow L \rightarrow \lrcorner) \end{array}$$

$$\begin{array}{l} (\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \lrcorner \rightarrow L) \\ (\lrcorner \rightarrow L \rightarrow \lrcorner) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma) \\ (\perp \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L) \\ (\perp \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp) \\ (\perp \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow L) \\ (\perp \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top) \\ (\perp \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L) \\ (\perp \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma) \\ (\perp \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow L \rightarrow \perp) \end{array}$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)$$

$$(\perp \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)$$

$$(\perp \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(\perp \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \top)$$

$$(\perp \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow L)$$

$$(\perp \rightarrow L \rightarrow \perp)$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L) \\ (\perp \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \top) \\ (\perp \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow L) \\ (\perp \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \top) \\ (\perp \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow L \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \top) \\ (\perp \rightarrow L \rightarrow \perp) \end{array}$$

$$(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L) \\ (\perp \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \top) \\ (\perp \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow L \rightarrow \perp)$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\neg \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\neg \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \neg \rightarrow L)}{(\neg \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \neg \rightarrow \Gamma)}{(\neg \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\neg \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(\neg \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\neg \rightarrow L \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow \neg)}{(\neg \rightarrow L \rightarrow \perp)}$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \perp \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \perp \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)$$

$$(\perp \rightarrow \perp \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(\perp \rightarrow \perp \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)$$

$$(\perp \rightarrow \perp \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(\perp \rightarrow \perp \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\perp \rightarrow \perp \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\perp \rightarrow \perp \rightarrow \perp)$$

$$(\lrcorner \rightarrow \top \rightarrow L) \rightarrow (\lrcorner \rightarrow \top \rightarrow \Gamma) \\ (\lrcorner \rightarrow L \rightarrow \lrcorner)$$

$$(\lrcorner \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \lrcorner) \\ (\lrcorner \rightarrow L \rightarrow \lrcorner)$$

$$(\lrcorner \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \top) \\ (\lrcorner \rightarrow L \rightarrow \lrcorner)$$

$$(\lrcorner \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \lrcorner \rightarrow L) \\ (\lrcorner \rightarrow L \rightarrow \lrcorner)$$

$$(\lrcorner \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \lrcorner \rightarrow \top) \\ (\lrcorner \rightarrow L \rightarrow \lrcorner)$$

$$(\lrcorner \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L) \\ (\lrcorner \rightarrow L \rightarrow \lrcorner)$$

$$(\lrcorner \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \lrcorner) \\ (\lrcorner \rightarrow L \rightarrow \lrcorner)$$

$$(\lrcorner \rightarrow \top \rightarrow L) \rightarrow (\lrcorner \rightarrow L \rightarrow \lrcorner) \\ (\lrcorner \rightarrow L \rightarrow \lrcorner)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)$$

$$(\top \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)$$

$$(\top \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(\top \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)$$

$$(\top \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\top \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)$$

$$(\top \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)$$

$$(\top \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)$$

$$(\top \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow \perp \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma) \\ (\perp \rightarrow \perp \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma) \\ (\perp \rightarrow \perp \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \perp)$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow L)}{(\neg \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma)}{(\neg \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\neg \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\neg \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\neg \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\neg \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\neg \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\neg \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\sqcap \rightarrow L \rightarrow \perp)}{(\sqcap \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\sqcap \rightarrow L \rightarrow \top)}{(\sqcap \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\sqcap \rightarrow \perp \rightarrow L)}{(\sqcap \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\sqcap \rightarrow \perp \rightarrow \top)}{(\sqcap \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\sqcap \rightarrow \Gamma \rightarrow L)}{(\sqcap \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\sqcap \rightarrow \Gamma \rightarrow \perp)}{(\sqcap \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\sqcap \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\sqcap \rightarrow L \rightarrow \perp)}$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\top \rightarrow L \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(\top \rightarrow L \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \top)$$

$$(\top \rightarrow L \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)$$

$$(\top \rightarrow L \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \top)$$

$$(\top \rightarrow L \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)$$

$$(\top \rightarrow L \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\top \rightarrow L \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(\top \rightarrow L \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\top \rightarrow \perp \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)$$

$$(\top \rightarrow \perp \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \top)$$

$$(\top \rightarrow \perp \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)$$

$$(\top \rightarrow \perp \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \top)$$

$$(\top \rightarrow \perp \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \top \rightarrow \perp)$$

$$(\top \rightarrow \perp \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \top \rightarrow \perp)$$

$$(\top \rightarrow \perp \rightarrow \perp)$$

$$(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\top \rightarrow \perp \rightarrow \perp)$$

$$(\Gamma \rightarrow \neg \rightarrow L) \rightarrow (\neg \rightarrow L \rightarrow \perp)$$

$$(\Gamma \rightarrow \neg \rightarrow L) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \neg \rightarrow L) \rightarrow (\neg \rightarrow \perp \rightarrow L)$$

$$(\Gamma \rightarrow \neg \rightarrow L) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \neg \rightarrow L) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow \neg \rightarrow L) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \neg \rightarrow \perp) \rightarrow (\neg \rightarrow L \rightarrow \perp)$$

$$(\Gamma \rightarrow \neg \rightarrow \perp) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\sqcap \rightarrow \perp \rightarrow \perp)$$

$$(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\sqcap \rightarrow \perp \rightarrow \top)$$

$$(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\sqcap \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\sqcap \rightarrow \Gamma \rightarrow \perp)$$

$$(\sqcap \rightarrow \perp \rightarrow \perp) \rightarrow (\sqcap \rightarrow \perp \rightarrow \top)$$

$$(\sqcap \rightarrow \perp \rightarrow \perp) \rightarrow (\sqcap \rightarrow \perp \rightarrow \perp)$$

$$(\sqcap \rightarrow \perp \rightarrow \perp) \rightarrow (\sqcap \rightarrow \perp \rightarrow \top)$$

$$(\sqcap \rightarrow \perp \rightarrow \perp) \rightarrow (\sqcap \rightarrow \Gamma \rightarrow \perp)$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\begin{array}{l}
 (\neg \rightarrow \neg \rightarrow \neg) \rightarrow (\neg \rightarrow \neg \rightarrow \neg) \\
 (\neg \rightarrow \neg \rightarrow \neg)
 \end{array}$$

$$\begin{array}{l}
 (\neg \rightarrow \neg \rightarrow \neg) \rightarrow (\neg \rightarrow \neg \rightarrow \neg) \\
 (\neg \rightarrow \neg \rightarrow \neg)
 \end{array}$$

$$\begin{array}{l}
 (\neg \rightarrow \neg \rightarrow \neg) \rightarrow (\neg \rightarrow \neg \rightarrow \neg) \\
 (\neg \rightarrow \neg \rightarrow \neg)
 \end{array}$$

1.6. Chreode = $(\perp \rightarrow L \rightarrow \Gamma)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \perp \rightarrow \top)$

$(\perp \rightarrow L \rightarrow \Gamma)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \Gamma \rightarrow \perp)$

$(\perp \rightarrow L \rightarrow \Gamma)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \Gamma \rightarrow \top)$

$(\perp \rightarrow L \rightarrow \Gamma)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \top \rightarrow \perp)$

$(\perp \rightarrow L \rightarrow \Gamma)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \top \rightarrow \Gamma)$

$(\perp \rightarrow L \rightarrow \Gamma)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)$

$(\perp \rightarrow L \rightarrow \Gamma)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \top)$

$(\perp \rightarrow L \rightarrow \Gamma)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)$

$(\perp \rightarrow L \rightarrow \Gamma)$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow \top)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow L)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow \Gamma)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow J)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow J)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow L)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow J)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow J)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow \top)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow J)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow \Gamma)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \top)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow L)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow \top)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \top \rightarrow L)$$

$$(\perp \rightarrow L \rightarrow \Gamma)$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \top \rightarrow \Gamma)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow J)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow J)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\perp \rightarrow J \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\perp \rightarrow J \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow J)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \Gamma \rightarrow \top)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \top \rightarrow J)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\begin{array}{l} (\Gamma \rightarrow \Delta) \rightarrow (\Gamma \rightarrow \Delta \rightarrow \Gamma) \\ (\Gamma \rightarrow \Delta \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \Delta) \rightarrow (\Gamma \rightarrow \Delta \rightarrow \top) \\ (\Gamma \rightarrow \Delta \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \Delta) \rightarrow (\Gamma \rightarrow \top \rightarrow \Delta) \\ (\Gamma \rightarrow \Delta \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \Delta) \rightarrow (\Gamma \rightarrow \top \rightarrow \Delta) \\ (\Gamma \rightarrow \Delta \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \Delta) \rightarrow (\Gamma \rightarrow \Delta \rightarrow \Delta) \\ (\Gamma \rightarrow \Delta \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \Delta) \rightarrow (\Gamma \rightarrow \Delta \rightarrow \Gamma) \\ (\Gamma \rightarrow \Delta \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \Delta) \rightarrow (\Gamma \rightarrow \Delta \rightarrow \Delta) \\ (\Gamma \rightarrow \Delta \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \Delta) \rightarrow (\Gamma \rightarrow \Delta \rightarrow \Gamma) \\ (\Gamma \rightarrow \Delta \rightarrow \Gamma) \end{array}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \top)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow L \rightarrow \neg)$$

$$(\neg \rightarrow L \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow L)$$

$$(\neg \rightarrow L \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow \neg)$$

$$(\neg \rightarrow L \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow L)$$

$$(\neg \rightarrow L \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow \neg)$$

$$(\neg \rightarrow L \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow J)$$

$$(\neg \rightarrow L \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)$$

$$(\neg \rightarrow L \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)$$

$$(\neg \rightarrow L \rightarrow \neg)$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \perp) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \neg)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \neg)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \neg \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \neg \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\top \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\begin{array}{c} (\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \lrcorner \rightarrow L) \\ (\lrcorner \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{c} (\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \lrcorner \rightarrow \Gamma) \\ (\lrcorner \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{c} (\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow L) \\ (\lrcorner \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{c} (\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow \lrcorner) \\ (\lrcorner \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{c} (\lrcorner \rightarrow L \rightarrow \top) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow L) \\ (\lrcorner \rightarrow L \rightarrow \top) \end{array}$$

$$\begin{array}{c} (\lrcorner \rightarrow L \rightarrow \top) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow \top) \\ (\lrcorner \rightarrow L \rightarrow \top) \end{array}$$

$$\begin{array}{c} (\lrcorner \rightarrow L \rightarrow \top) \rightarrow (\lrcorner \rightarrow \top \rightarrow L) \\ (\lrcorner \rightarrow L \rightarrow \top) \end{array}$$

$$\begin{array}{c} (\lrcorner \rightarrow L \rightarrow \top) \rightarrow (\lrcorner \rightarrow \top \rightarrow \Gamma) \\ (\lrcorner \rightarrow L \rightarrow \top) \end{array}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow L \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow L \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L) \\ (\perp \rightarrow L \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow L \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \top) \\ (\perp \rightarrow L \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow L) \\ (\perp \rightarrow L \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \top) \\ (\perp \rightarrow L \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow L \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \top) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \Gamma) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow L \rightarrow \Gamma) \end{array}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \perp \rightarrow L)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow L)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \top)$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow L \rightarrow \Gamma)}$$

$$\begin{array}{l} (\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\top \rightarrow L \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(\top \rightarrow L \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)$$

$$(\top \rightarrow L \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)$$

$$(\top \rightarrow L \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(\top \rightarrow L \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)$$

$$(\top \rightarrow L \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\top \rightarrow L \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(\top \rightarrow L \rightarrow \Gamma)$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\top \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\top \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\top \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\top \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\top \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\top \rightarrow \perp \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\top \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\top \rightarrow \perp \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\top \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\top \rightarrow \perp \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\top \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \Gamma)}$$

$$\begin{array}{l} (\perp \rightarrow \perp \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \perp \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \perp \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \Gamma) \end{array}$$

2. Mediale Kanäle

2.1. Chreode = (L → J → Γ)

(L → J → Γ) → (L → J → ⊥)
(L → J → Γ)

(L → J → Γ) → (L → Γ → J)
(L → J → Γ)

(L → J → Γ) → (L → Γ → ⊥)
(L → J → Γ)

(L → J → Γ) → (L → ⊥ → J)
(L → J → Γ)

(L → J → Γ) → (L → ⊥ → Γ)
(L → J → Γ)

(L → J → Γ) → (⊥ → L → Γ)
(L → J → Γ)

(L → J → Γ) → (⊥ → L → ⊥)
(L → J → Γ)

(L → J → Γ) → (⊥ → Γ → L)
(L → J → Γ)

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow \top)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow J)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow J)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow J)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow J)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow \top)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow J)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \top)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow \top)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \top \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow J)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow J)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow J \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow J)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \Gamma \rightarrow \top)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \top \rightarrow J)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (J \rightarrow L \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (J \rightarrow L \rightarrow \neg)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow \neg)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow \neg)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow J)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \neg)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow \neg)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow L \rightarrow \neg)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow \neg)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow \neg)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow J)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow \Gamma \rightarrow J)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow L \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow L \rightarrow \neg)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow \neg)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow \neg \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \neg)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow L \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L) \\ (L \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \top) \\ (L \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \top \rightarrow L) \\ (L \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \top \rightarrow \perp) \\ (L \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \top) \\ (L \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow L) \\ (L \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \top) \\ (L \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp) \\ (L \rightarrow \perp \rightarrow \top) \end{array}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \neg \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

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$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \top)$$

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$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \top \rightarrow \perp)$$

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$$(\perp \rightarrow \top \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \top)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow J) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow J) \rightarrow (\neg \rightarrow \Gamma \rightarrow J)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow \neg)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(L \rightarrow \perp \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

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$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

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$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)$$

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$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)$$

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$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

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$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \perp \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(L \rightarrow \perp \rightarrow \Gamma)$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \top)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \top)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \top \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \top \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (L \rightarrow \perp \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp) \\ (L \rightarrow \perp \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)$$

$$(L \rightarrow \perp \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L) \\ (L \rightarrow \perp \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \perp \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L) \\ (L \rightarrow \perp \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\ (L \rightarrow \perp \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp) \\ (L \rightarrow \perp \rightarrow \Gamma)$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow J) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow J) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow J)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow J)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow J \rightarrow L) \rightarrow (\Gamma \rightarrow J \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow J \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(L \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

2.2. Chreode = (L → J → ⊥)

(L → J → ⊢) → (L → J → ⊥)

(L → J → ⊥)

(L → J → ⊢) → (L → ⊢ → J)

(L → J → ⊥)

(L → J → ⊢) → (L → ⊢ → ⊥)

(L → J → ⊥)

(L → J → ⊢) → (L → ⊥ → J)

(L → J → ⊥)

(L → J → ⊢) → (L → ⊥ → ⊢)

(L → J → ⊥)

(L → J → ⊢) → (⊥ → L → ⊢)

(L → J → ⊥)

(L → J → ⊢) → (⊥ → L → ⊥)

(L → J → ⊥)

(L → J → ⊢) → (⊥ → ⊢ → L)

(L → J → ⊥)

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow \top)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow L)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow J)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow J)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow L)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow J)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow J)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (L \rightarrow \Gamma \rightarrow \neg)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow J)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow L \rightarrow \neg)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow \Gamma \rightarrow \neg)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow \neg \rightarrow L)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow \neg)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow L \rightarrow J)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow J \rightarrow L)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow J \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow \Gamma \rightarrow J)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \Gamma \rightarrow \neg)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \neg \rightarrow J)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (J \rightarrow L \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (J \rightarrow L \rightarrow \top)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow L)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow \top)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (J \rightarrow \top \rightarrow L)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (J \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow \top \rightarrow J)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\top \rightarrow L \rightarrow J)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\top \rightarrow J \rightarrow L)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \neg)}{(L \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow \neg)}{(L \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow L \rightarrow \neg)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow L)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow \neg)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow L)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(L \rightarrow J \rightarrow \neg)}$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)$$

$$(L \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)$$

$$(L \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow J)$$

$$(L \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)$$

$$(L \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow L)$$

$$(L \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow \Gamma)$$

$$(L \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow J \rightarrow \neg)$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow \Gamma \rightarrow J)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow L \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow L \rightarrow \neg)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow L)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow \neg)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow \neg \rightarrow L)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(L \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(L \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \neg)}{(L \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(L \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow L \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\begin{array}{c} (\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \lrcorner \rightarrow L) \\ (L \rightarrow \lrcorner \rightarrow \top) \end{array}$$

$$\begin{array}{c} (\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \lrcorner \rightarrow \Gamma) \\ (L \rightarrow \lrcorner \rightarrow \top) \end{array}$$

$$\begin{array}{c} (\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow L) \\ (L \rightarrow \lrcorner \rightarrow \top) \end{array}$$

$$\begin{array}{c} (\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow \lrcorner) \\ (L \rightarrow \lrcorner \rightarrow \top) \end{array}$$

$$\begin{array}{c} (\lrcorner \rightarrow L \rightarrow \top) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow L) \\ (L \rightarrow \lrcorner \rightarrow \top) \end{array}$$

$$\begin{array}{c} (\lrcorner \rightarrow L \rightarrow \top) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow \top) \\ (L \rightarrow \lrcorner \rightarrow \top) \end{array}$$

$$\begin{array}{c} (\lrcorner \rightarrow L \rightarrow \top) \rightarrow (\lrcorner \rightarrow \top \rightarrow L) \\ (L \rightarrow \lrcorner \rightarrow \top) \end{array}$$

$$\begin{array}{c} (\lrcorner \rightarrow L \rightarrow \top) \rightarrow (\lrcorner \rightarrow \top \rightarrow \Gamma) \\ (L \rightarrow \lrcorner \rightarrow \top) \end{array}$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \top)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \top) \\ (L \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow L) \\ (L \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (L \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L) \\ (L \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (L \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp) \\ (L \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma) \\ (L \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L) \\ (L \rightarrow \perp \rightarrow \top) \end{array}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \top)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \top)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \top \rightarrow L)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \top \rightarrow \perp)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \top)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)$$

$$(L \rightarrow \perp \rightarrow \neg)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow L)$$

$$(L \rightarrow \perp \rightarrow \neg)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \perp \rightarrow \neg)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \perp \rightarrow \neg)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)$$

$$(L \rightarrow \perp \rightarrow \neg)$$

$$(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)$$

$$(L \rightarrow \perp \rightarrow \neg)$$

$$(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow \neg)$$

$$(L \rightarrow \perp \rightarrow \neg)$$

$$(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)$$

$$(L \rightarrow \perp \rightarrow \neg)$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \perp \rightarrow \top)}$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(L \rightarrow \perp \rightarrow \top)$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow J) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow J) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow J)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow J)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow J \rightarrow L) \rightarrow (\Gamma \rightarrow J \rightarrow \Gamma)}{(L \rightarrow J \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow J \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(L \rightarrow J \rightarrow \top)}$$

$$\begin{array}{c}
 (\top \rightarrow \perp \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\
 (L \rightarrow \perp \rightarrow \top)
 \end{array}$$

$$\begin{array}{c}
 (\top \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\
 (L \rightarrow \perp \rightarrow \top)
 \end{array}$$

$$\begin{array}{c}
 (\top \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\
 (L \rightarrow \perp \rightarrow \top)
 \end{array}$$

$$\begin{array}{c}
 (\top \rightarrow \Gamma \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\
 (L \rightarrow \perp \rightarrow \top)
 \end{array}$$

2.3. Chreode = $(\Gamma \rightarrow \perp \rightarrow L)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \perp \rightarrow \top)$
 $(\Gamma \rightarrow \perp \rightarrow L)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \Gamma \rightarrow \perp)$
 $(\Gamma \rightarrow \perp \rightarrow L)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \Gamma \rightarrow \top)$
 $(\Gamma \rightarrow \perp \rightarrow L)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \top \rightarrow \perp)$
 $(\Gamma \rightarrow \perp \rightarrow L)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \top \rightarrow \Gamma)$
 $(\Gamma \rightarrow \perp \rightarrow L)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)$
 $(\Gamma \rightarrow \perp \rightarrow L)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \top)$
 $(\Gamma \rightarrow \perp \rightarrow L)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)$
 $(\Gamma \rightarrow \perp \rightarrow L)$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow J)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow J)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow L)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow J)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow J)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow J)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow \neg)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow L \rightarrow J)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow J \rightarrow L)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow J)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \top \rightarrow J)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow \top \rightarrow J)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\top \rightarrow L \rightarrow J)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\top \rightarrow J \rightarrow L)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \neg)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow \neg)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow L \rightarrow \neg)$$

$$(\Gamma \rightarrow J \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow J \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow \neg)$$

$$(\Gamma \rightarrow J \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow L)$$

$$(\Gamma \rightarrow J \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)$$

$$(\Gamma \rightarrow J \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow J)$$

$$(\Gamma \rightarrow J \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)$$

$$(\Gamma \rightarrow J \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)$$

$$(\Gamma \rightarrow J \rightarrow L)$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow \neg)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow J)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow L)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow \Gamma \rightarrow J)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow L \rightarrow \neg)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow \neg)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow \neg \rightarrow L)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\begin{array}{c} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp) \\ (\Gamma \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top) \\ (\Gamma \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L) \\ (\Gamma \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\Gamma \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L) \\ (\Gamma \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\Gamma \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp) \\ (\Gamma \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma) \\ (\Gamma \rightarrow \perp \rightarrow L) \end{array}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow \neg)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow J \rightarrow L) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow J \rightarrow L) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow J \rightarrow L) \rightarrow (\neg \rightarrow L \rightarrow J)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow J \rightarrow L) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow J \rightarrow L) \rightarrow (\neg \rightarrow J \rightarrow L)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow J \rightarrow L) \rightarrow (\neg \rightarrow J \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow J \rightarrow L) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow J \rightarrow L) \rightarrow (\neg \rightarrow \Gamma \rightarrow J)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow J) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow J) \rightarrow (\Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow J) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow J)}{(\Gamma \rightarrow L \rightarrow J) \rightarrow (\Gamma \rightarrow J)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow J)}{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J)}$$

$$\frac{(\Gamma \rightarrow J \rightarrow L) \rightarrow (\Gamma \rightarrow J \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow J \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow J \rightarrow L) \rightarrow (\Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

2.4. Chreode = $(\Gamma \rightarrow \perp \rightarrow \top)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \perp \rightarrow \top)$
 $(\Gamma \rightarrow \perp \rightarrow \top)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \Gamma \rightarrow \perp)$
 $(\Gamma \rightarrow \perp \rightarrow \top)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \Gamma \rightarrow \top)$
 $(\Gamma \rightarrow \perp \rightarrow \top)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \top \rightarrow \perp)$
 $(\Gamma \rightarrow \perp \rightarrow \top)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \top \rightarrow \Gamma)$
 $(\Gamma \rightarrow \perp \rightarrow \top)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)$
 $(\Gamma \rightarrow \perp \rightarrow \top)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \top)$
 $(\Gamma \rightarrow \perp \rightarrow \top)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)$
 $(\Gamma \rightarrow \perp \rightarrow \top)$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(\Gamma \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(\Gamma \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}{(\Gamma \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow J \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \Gamma) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \Gamma) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

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$$\frac{(\Gamma \rightarrow \perp \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow J)}{(\Gamma \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow J \rightarrow \top)}$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (J \rightarrow \neg \rightarrow \Gamma) \\ (\Gamma \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow J) \\ (\Gamma \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \neg) \\ (\Gamma \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow L) \\ (\Gamma \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow \neg) \\ (\Gamma \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L) \\ (\Gamma \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow J) \\ (\Gamma \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow L \rightarrow J) \\ (\Gamma \rightarrow J \rightarrow \neg)$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow J \rightarrow L)}{(\Gamma \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow J)}{(\Gamma \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \top \rightarrow J)}{(\Gamma \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \neg)}{(\Gamma \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow \neg)}{(\Gamma \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow L \rightarrow \neg)$$

$$(\Gamma \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow \neg)$$

$$(\Gamma \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow L)$$

$$(\Gamma \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)$$

$$(\Gamma \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow J)$$

$$(\Gamma \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)$$

$$(\Gamma \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)$$

$$(\Gamma \rightarrow J \rightarrow \neg)$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow \neg)}{(\Gamma \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(\Gamma \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)}{(\Gamma \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow J)}{(\Gamma \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow L)}{(\Gamma \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow \Gamma \rightarrow J)}{(\Gamma \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow L \rightarrow \neg)}{(\Gamma \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow \neg)}{(\Gamma \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow \neg \rightarrow L)}{(\Gamma \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(\Gamma \rightarrow J \rightarrow \neg)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

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$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

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$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

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$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

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$$\frac{(\perp \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

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$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

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$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \neg \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \neg \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(\Gamma \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \neg)}$$

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$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow \neg)}{(\Gamma \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \neg)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\top \rightarrow \perp \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\top \rightarrow \perp \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\top \rightarrow \perp \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow J) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow J) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow J) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow J)}{(\Gamma \rightarrow L \rightarrow J) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow \Gamma)}{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow J)}{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow J \rightarrow L) \rightarrow (\Gamma \rightarrow J \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow L) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow J \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow J \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \top)}$$

2.5. Chreode = $(\neg \rightarrow \perp \rightarrow L)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \perp \rightarrow \neg)$

$(\neg \rightarrow \perp \rightarrow L)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \Gamma \rightarrow \perp)$

$(\neg \rightarrow \perp \rightarrow L)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \Gamma \rightarrow \neg)$

$(\neg \rightarrow \perp \rightarrow L)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \neg \rightarrow \perp)$

$(\neg \rightarrow \perp \rightarrow L)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \neg \rightarrow \Gamma)$

$(\neg \rightarrow \perp \rightarrow L)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)$

$(\neg \rightarrow \perp \rightarrow L)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \neg)$

$(\neg \rightarrow \perp \rightarrow L)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)$

$(\neg \rightarrow \perp \rightarrow L)$

$$\begin{array}{l} (\text{L} \rightarrow \text{J} \rightarrow \Gamma) \rightarrow (\text{J} \rightarrow \Gamma \rightarrow \top) \\ (\top \rightarrow \text{J} \rightarrow \text{L}) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \text{J} \rightarrow \Gamma) \rightarrow (\text{J} \rightarrow \top \rightarrow \text{L}) \\ (\top \rightarrow \text{J} \rightarrow \text{L}) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \text{J} \rightarrow \Gamma) \rightarrow (\text{J} \rightarrow \top \rightarrow \Gamma) \\ (\top \rightarrow \text{J} \rightarrow \text{L}) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \text{J} \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \text{L} \rightarrow \text{J}) \\ (\top \rightarrow \text{J} \rightarrow \text{L}) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \text{J} \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \text{L} \rightarrow \top) \\ (\top \rightarrow \text{J} \rightarrow \text{L}) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \text{J} \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \text{J} \rightarrow \text{L}) \\ (\top \rightarrow \text{J} \rightarrow \text{L}) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \text{J} \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \text{J} \rightarrow \top) \\ (\top \rightarrow \text{J} \rightarrow \text{L}) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \text{J} \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \text{L}) \\ (\top \rightarrow \text{J} \rightarrow \text{L}) \end{array}$$

$$\begin{array}{l} (L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow J) \\ (\top \rightarrow J \rightarrow L) \end{array}$$

$$\begin{array}{l} (L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow J) \\ (\top \rightarrow J \rightarrow L) \end{array}$$

$$\begin{array}{l} (L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma) \\ (\top \rightarrow J \rightarrow L) \end{array}$$

$$\begin{array}{l} (L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow L) \\ (\top \rightarrow J \rightarrow L) \end{array}$$

$$\begin{array}{l} (L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow \Gamma) \\ (\top \rightarrow J \rightarrow L) \end{array}$$

$$\begin{array}{l} (L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L) \\ (\top \rightarrow J \rightarrow L) \end{array}$$

$$\begin{array}{l} (L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow J) \\ (\top \rightarrow J \rightarrow L) \end{array}$$

$$\begin{array}{l} (L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow J) \\ (\top \rightarrow J \rightarrow L) \end{array}$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow \top)$$

$$(\perp \rightarrow J \rightarrow L)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow J)$$

$$(\perp \rightarrow J \rightarrow L)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow \Gamma)$$

$$(\perp \rightarrow J \rightarrow L)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow J \rightarrow L)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \top)$$

$$(\perp \rightarrow J \rightarrow L)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow L)$$

$$(\perp \rightarrow J \rightarrow L)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow \top)$$

$$(\perp \rightarrow J \rightarrow L)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \top \rightarrow L)$$

$$(\perp \rightarrow J \rightarrow L)$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \top \rightarrow \Gamma)}{(\top \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(\top \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\top \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(\top \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}{(\top \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\top \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow J)}{(\top \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow J)}{(\top \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\top \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow J \rightarrow L)}{(\top \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(\top \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\top \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow J)}{(\top \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \Gamma \rightarrow \top)}{(\top \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \top \rightarrow J)}{(\top \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(\top \rightarrow J \rightarrow L)}$$

$$\begin{array}{l} (\text{L} \rightarrow \Gamma \rightarrow \text{J}) \rightarrow (\text{J} \rightarrow \text{L} \rightarrow \Gamma) \\ (\sqcap \rightarrow \text{J} \rightarrow \text{L}) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \Gamma \rightarrow \text{J}) \rightarrow (\text{J} \rightarrow \text{L} \rightarrow \top) \\ (\sqcap \rightarrow \text{J} \rightarrow \text{L}) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \Gamma \rightarrow \text{J}) \rightarrow (\text{J} \rightarrow \Gamma \rightarrow \text{L}) \\ (\sqcap \rightarrow \text{J} \rightarrow \text{L}) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \Gamma \rightarrow \text{J}) \rightarrow (\text{J} \rightarrow \Gamma \rightarrow \top) \\ (\sqcap \rightarrow \text{J} \rightarrow \text{L}) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \Gamma \rightarrow \text{J}) \rightarrow (\text{J} \rightarrow \top \rightarrow \text{L}) \\ (\sqcap \rightarrow \text{J} \rightarrow \text{L}) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \Gamma \rightarrow \text{J}) \rightarrow (\text{J} \rightarrow \top \rightarrow \Gamma) \\ (\sqcap \rightarrow \text{J} \rightarrow \text{L}) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \Gamma \rightarrow \text{J}) \rightarrow (\Gamma \rightarrow \text{L} \rightarrow \text{J}) \\ (\sqcap \rightarrow \text{J} \rightarrow \text{L}) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \Gamma \rightarrow \text{J}) \rightarrow (\Gamma \rightarrow \text{L} \rightarrow \top) \\ (\sqcap \rightarrow \text{J} \rightarrow \text{L}) \end{array}$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)$$

$$(\neg \rightarrow J \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow \neg)$$

$$(\neg \rightarrow J \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)$$

$$(\neg \rightarrow J \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)$$

$$(\neg \rightarrow J \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow J)$$

$$(\neg \rightarrow J \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow \neg)$$

$$(\neg \rightarrow J \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow L)$$

$$(\neg \rightarrow J \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow \neg)$$

$$(\neg \rightarrow J \rightarrow L)$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\neg \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\neg \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \perp)}{(\neg \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \Gamma)}{(\neg \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\neg \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \neg)}{(\neg \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\neg \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow \neg)}{(\neg \rightarrow \perp \rightarrow L)}$$

$$\begin{array}{l} (\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma) \\ (\perp \rightarrow \perp \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow \perp \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow \perp \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp) \\ (\top \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma) \\ (\top \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L) \\ (\top \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma) \\ (\top \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L) \\ (\top \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\ (\top \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (L \rightarrow \top \rightarrow \perp) \rightarrow (L \rightarrow \top \rightarrow \Gamma) \\ (\top \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma) \\ (\top \rightarrow \perp \rightarrow L) \end{array}$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow L \rightarrow \neg)$$

$$(\neg \rightarrow J \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow L)$$

$$(\neg \rightarrow J \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow \neg)$$

$$(\neg \rightarrow J \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow L)$$

$$(\neg \rightarrow J \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)$$

$$(\neg \rightarrow J \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow J)$$

$$(\neg \rightarrow J \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)$$

$$(\neg \rightarrow J \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)$$

$$(\neg \rightarrow J \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow \neg)$$

$$(\neg \rightarrow J \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)$$

$$(\neg \rightarrow J \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)$$

$$(\neg \rightarrow J \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow J)$$

$$(\neg \rightarrow J \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)$$

$$(\neg \rightarrow J \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow L)$$

$$(\neg \rightarrow J \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow \Gamma)$$

$$(\neg \rightarrow J \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)$$

$$(\neg \rightarrow J \rightarrow L)$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow \Gamma \rightarrow J)}{(\neg \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow L \rightarrow \Gamma)}{(\neg \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow L \rightarrow \neg)}{(\neg \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow L)}{(\neg \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow \neg)}{(\neg \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow \neg \rightarrow L)}{(\neg \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)}{(\neg \rightarrow J \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(\neg \rightarrow J \rightarrow L)}$$

$$\begin{array}{l} (\text{L} \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \text{L} \rightarrow \neg) \\ (\neg \rightarrow \neg \rightarrow \text{L}) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow \text{L}) \\ (\neg \rightarrow \neg \rightarrow \text{L}) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow \neg) \\ (\neg \rightarrow \neg \rightarrow \text{L}) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow \text{L}) \\ (\neg \rightarrow \neg \rightarrow \text{L}) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow \neg) \\ (\neg \rightarrow \neg \rightarrow \text{L}) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow \text{L} \rightarrow \neg) \\ (\neg \rightarrow \neg \rightarrow \text{L}) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow \text{L} \rightarrow \Gamma) \\ (\neg \rightarrow \neg \rightarrow \text{L}) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow \neg \rightarrow \text{L}) \\ (\neg \rightarrow \neg \rightarrow \text{L}) \end{array}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma)}{(\neg \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\neg \rightarrow \perp \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\neg \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(\neg \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\neg \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\neg \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\neg \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\neg \rightarrow \perp \rightarrow L)}$$

$$\begin{array}{l} (\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \lrcorner) \\ (\sqcap \rightarrow \lrcorner \rightarrow L) \end{array}$$

$$\begin{array}{l} (\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top) \\ (\sqcap \rightarrow \lrcorner \rightarrow L) \end{array}$$

$$\begin{array}{l} (\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \lrcorner \rightarrow L) \\ (\sqcap \rightarrow \lrcorner \rightarrow L) \end{array}$$

$$\begin{array}{l} (\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \lrcorner \rightarrow \top) \\ (\sqcap \rightarrow \lrcorner \rightarrow L) \end{array}$$

$$\begin{array}{l} (\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L) \\ (\sqcap \rightarrow \lrcorner \rightarrow L) \end{array}$$

$$\begin{array}{l} (\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \lrcorner) \\ (\sqcap \rightarrow \lrcorner \rightarrow L) \end{array}$$

$$\begin{array}{l} (\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\sqcap \rightarrow L \rightarrow \lrcorner) \\ (\sqcap \rightarrow \lrcorner \rightarrow L) \end{array}$$

$$\begin{array}{l} (\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\sqcap \rightarrow L \rightarrow \Gamma) \\ (\sqcap \rightarrow \lrcorner \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow L) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \Gamma) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \top) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow L) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \top) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \top) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \Gamma) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \perp \rightarrow L) \end{array}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \neg \rightarrow \Gamma)}{(\neg \rightarrow \neg \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\neg \rightarrow \neg \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \Gamma \rightarrow \neg)}{(\neg \rightarrow \neg \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \neg \rightarrow L)}{(\neg \rightarrow \neg \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \neg \rightarrow \Gamma)}{(\neg \rightarrow \neg \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(\neg \rightarrow \neg \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(\neg \rightarrow \neg \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(\neg \rightarrow \neg \rightarrow L)}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow \perp \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma) \\ (\perp \rightarrow \perp \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma) \\ (\perp \rightarrow \perp \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \perp) \end{array}$$

$$\frac{(\lrcorner \rightarrow \Gamma \rightarrow \top) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow \lrcorner) \quad (\lrcorner \rightarrow \lrcorner \rightarrow \perp)}{\text{-----}}$$

$$(\lrcorner \rightarrow \top \rightarrow \perp) \rightarrow (\lrcorner \rightarrow \top \rightarrow \Gamma)$$

$$(\lrcorner \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \lrcorner)$$

$$(\lrcorner \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)$$

$$(\lrcorner \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \lrcorner \rightarrow \perp)$$

$$(\lrcorner \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \lrcorner \rightarrow \top)$$

$$(\lrcorner \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\lrcorner \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \lrcorner)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(\top \rightarrow \perp \rightarrow L)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \top)$$

$$(\top \rightarrow \perp \rightarrow L)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)$$

$$(\top \rightarrow \perp \rightarrow L)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \top)$$

$$(\top \rightarrow \perp \rightarrow L)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \top \rightarrow L)$$

$$(\top \rightarrow \perp \rightarrow L)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \top \rightarrow \perp)$$

$$(\top \rightarrow \perp \rightarrow L)$$

$$(\perp \rightarrow \top \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(\top \rightarrow \perp \rightarrow L)$$

$$(\perp \rightarrow \top \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \top)$$

$$(\top \rightarrow \perp \rightarrow L)$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(\neg \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow L)}{(\neg \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma)}{(\neg \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\neg \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\neg \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\neg \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\neg \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\neg \rightarrow \perp \rightarrow L)}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\top \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp) \\ (\top \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma) \\ (\top \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L) \\ (\top \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma) \\ (\top \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L) \\ (\top \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\ (\top \rightarrow \perp \rightarrow L) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\top \rightarrow \perp \rightarrow L) \end{array}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\top \rightarrow \perp \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\top \rightarrow \perp \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)$$

$$(\top \rightarrow \perp \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(\top \rightarrow \perp \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)$$

$$(\top \rightarrow \perp \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(\top \rightarrow \perp \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\top \rightarrow \perp \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\top \rightarrow \perp \rightarrow \perp)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\top \rightarrow \perp \rightarrow L)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(\top \rightarrow \perp \rightarrow L)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \top)$$

$$(\top \rightarrow \perp \rightarrow L)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)$$

$$(\top \rightarrow \perp \rightarrow L)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \top)$$

$$(\top \rightarrow \perp \rightarrow L)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)$$

$$(\top \rightarrow \perp \rightarrow L)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\top \rightarrow \perp \rightarrow L)$$

$$(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(\top \rightarrow \perp \rightarrow L)$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\top \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\top \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\top \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\top \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\top \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\top \rightarrow \perp \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\top \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\top \rightarrow \perp \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\top \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\top \rightarrow \perp \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\top \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow J) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow J) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow J)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow J)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow J \rightarrow L) \rightarrow (\Gamma \rightarrow J \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow J \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

2.6. Chreode = $(\perp \rightarrow \lrcorner \rightarrow \Gamma)$

$$\begin{array}{l} (\perp \rightarrow \lrcorner \rightarrow \Gamma) \rightarrow (\perp \rightarrow \lrcorner \rightarrow \lrcorner) \\ (\perp \rightarrow \lrcorner \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \lrcorner \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \lrcorner) \\ (\perp \rightarrow \lrcorner \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \lrcorner \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \lrcorner) \\ (\perp \rightarrow \lrcorner \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \lrcorner \rightarrow \Gamma) \rightarrow (\perp \rightarrow \lrcorner \rightarrow \lrcorner) \\ (\perp \rightarrow \lrcorner \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \lrcorner \rightarrow \Gamma) \rightarrow (\perp \rightarrow \lrcorner \rightarrow \Gamma) \\ (\perp \rightarrow \lrcorner \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \lrcorner \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \perp \rightarrow \Gamma) \\ (\perp \rightarrow \lrcorner \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \lrcorner \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \perp \rightarrow \lrcorner) \\ (\perp \rightarrow \lrcorner \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \lrcorner \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow \perp) \\ (\perp \rightarrow \lrcorner \rightarrow \Gamma) \end{array}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow \top)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow L)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow \Gamma)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow J)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow J)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow L)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow J)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow J)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow \top)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow J)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \Gamma)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \top)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow L)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow \top)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \top \rightarrow L)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)}{(\neg \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(\neg \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(\neg \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(\neg \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow \neg)}{(\neg \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(\neg \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)}{(\neg \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow L \rightarrow J)}{(\neg \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow J \rightarrow L)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow J)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \Gamma \rightarrow \top)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \top \rightarrow J)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(\top \rightarrow J \rightarrow \Gamma)}$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \top)$$

$$(\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)$$

$$(\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)$$

$$(\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow L)$$

$$(\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)$$

$$(\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)$$

$$(\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)$$

$$(\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow L)$$

$$(\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(\perp \rightarrow \perp \rightarrow \Gamma)$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\neg \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\neg \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \perp)}{(\neg \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \Gamma)}{(\neg \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\neg \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \neg)}{(\neg \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\neg \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow \neg)}{(\neg \rightarrow \perp \rightarrow \Gamma)}$$

$$\begin{array}{l} (\text{L} \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \text{L}) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \top) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \text{L} \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \text{L} \rightarrow \top) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \text{L}) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \text{L}) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp) \\ (\top \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma) \\ (\top \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L) \\ (\top \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma) \\ (\top \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L) \\ (\top \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\ (\top \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (L \rightarrow \top \rightarrow \perp) \rightarrow (L \rightarrow \top \rightarrow \Gamma) \\ (\top \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma) \\ (\top \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow L \rightarrow \neg)$$

$$(\neg \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow L)$$

$$(\neg \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow \neg)$$

$$(\neg \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow L)$$

$$(\neg \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow \neg)$$

$$(\neg \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow J)$$

$$(\neg \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)$$

$$(\neg \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)$$

$$(\neg \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow \neg)$$

$$(\neg \rightarrow J \rightarrow \Gamma)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)$$

$$(\neg \rightarrow J \rightarrow \Gamma)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)$$

$$(\neg \rightarrow J \rightarrow \Gamma)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow J)$$

$$(\neg \rightarrow J \rightarrow \Gamma)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)$$

$$(\neg \rightarrow J \rightarrow \Gamma)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow L)$$

$$(\neg \rightarrow J \rightarrow \Gamma)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow \Gamma)$$

$$(\neg \rightarrow J \rightarrow \Gamma)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)$$

$$(\neg \rightarrow J \rightarrow \Gamma)$$

$$\frac{(L \rightarrow \neg \rightarrow \lrcorner) \rightarrow (\neg \rightarrow \Gamma \rightarrow \lrcorner)}{(\neg \rightarrow \lrcorner \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow L \rightarrow \Gamma)}{(\neg \rightarrow \lrcorner \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow L \rightarrow \neg)}{(\neg \rightarrow \lrcorner \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow L)}{(\neg \rightarrow \lrcorner \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow \neg)}{(\neg \rightarrow \lrcorner \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \neg \rightarrow L)}{(\neg \rightarrow \lrcorner \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \neg \rightarrow \Gamma)}{(\neg \rightarrow \lrcorner \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \lrcorner)}{(\neg \rightarrow \lrcorner \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(\neg \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(\neg \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow \neg)}{(\neg \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(\neg \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow \neg)}{(\neg \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow L \rightarrow \neg)}{(\neg \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(\neg \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow \neg \rightarrow L)}{(\neg \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \bot \rightarrow \Gamma)}{(\perp \rightarrow \bot \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \bot \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \bot)}{(\perp \rightarrow \bot \rightarrow \Gamma)}$$

$$\frac{(\bot \rightarrow L \rightarrow \Gamma) \rightarrow (\bot \rightarrow L \rightarrow \top)}{(\perp \rightarrow \bot \rightarrow \Gamma)}$$

$$\frac{(\bot \rightarrow L \rightarrow \Gamma) \rightarrow (\bot \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \bot \rightarrow \Gamma)}$$

$$\frac{(\bot \rightarrow L \rightarrow \Gamma) \rightarrow (\bot \rightarrow \Gamma \rightarrow \top)}{(\perp \rightarrow \bot \rightarrow \Gamma)}$$

$$\frac{(\bot \rightarrow L \rightarrow \Gamma) \rightarrow (\bot \rightarrow \top \rightarrow L)}{(\perp \rightarrow \bot \rightarrow \Gamma)}$$

$$\frac{(\bot \rightarrow L \rightarrow \Gamma) \rightarrow (\bot \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow \bot \rightarrow \Gamma)}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top) \\ (\perp \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L) \\ (\perp \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma) \\ (\perp \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \lrcorner \rightarrow L) \\ (\lrcorner \rightarrow \lrcorner \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \lrcorner \rightarrow \Gamma) \\ (\lrcorner \rightarrow \lrcorner \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow L) \\ (\lrcorner \rightarrow \lrcorner \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow \lrcorner) \\ (\lrcorner \rightarrow \lrcorner \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\lrcorner \rightarrow L \rightarrow \top) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow L) \\ (\lrcorner \rightarrow \lrcorner \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\lrcorner \rightarrow L \rightarrow \top) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow \top) \\ (\lrcorner \rightarrow \lrcorner \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\lrcorner \rightarrow L \rightarrow \top) \rightarrow (\lrcorner \rightarrow \top \rightarrow L) \\ (\lrcorner \rightarrow \lrcorner \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\lrcorner \rightarrow L \rightarrow \top) \rightarrow (\lrcorner \rightarrow \top \rightarrow \Gamma) \\ (\lrcorner \rightarrow \lrcorner \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \top) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \top) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow L) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \top) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \top) \\ (\perp \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L) \\ (\perp \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \Gamma) \\ (\perp \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma) \\ (\neg \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \Gamma \rightarrow L) \\ (\neg \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp) \\ (\neg \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \neg \rightarrow L) \\ (\neg \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \neg \rightarrow \Gamma) \\ (\neg \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \perp) \\ (\neg \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \neg) \\ (\neg \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow L) \\ (\neg \rightarrow \perp \rightarrow \Gamma) \end{array}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\top \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow \top)}{(\top \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\top \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\top \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\top \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\top \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\top \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\top \rightarrow \perp \rightarrow \top)}$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \top)$$

$$(\perp \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \perp \rightarrow L)$$

$$(\perp \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow L)$$

$$(\perp \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \top)$$

$$(\perp \rightarrow \perp \rightarrow \top)$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(\neg \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow L)}{(\neg \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma)}{(\neg \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\neg \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\neg \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\neg \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow \neg)}{(\neg \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(\neg \rightarrow \perp \rightarrow \Gamma)}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow \perp) \rightarrow \Gamma \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow \perp) \rightarrow \Gamma \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \Gamma) \\ (\perp \rightarrow \perp) \rightarrow \Gamma \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \perp) \rightarrow \Gamma \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma) \\ (\perp \rightarrow \perp) \rightarrow \Gamma \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow L) \\ (\perp \rightarrow \perp) \rightarrow \Gamma \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp) \\ (\perp \rightarrow \perp) \rightarrow \Gamma \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow \perp) \rightarrow \Gamma \end{array}$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

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$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \perp)$$

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$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)$$

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$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)$$

$$(\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\perp \rightarrow \perp \rightarrow \Gamma)$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\top \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\top \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\top \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \top)}{(\top \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\top \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \top)}{(\top \rightarrow \perp \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \top \rightarrow \perp)}{(\top \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \top \rightarrow \perp)}{(\top \rightarrow \perp \rightarrow \perp)}$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp) \\ (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma) \\ (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L) \\ (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma) \\ (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L) \\ (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\ (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp) \\ (\top \rightarrow \perp \rightarrow \Gamma)$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\top \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\top \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\top \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\top \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\top \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\top \rightarrow \perp \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\top \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\top \rightarrow \perp \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\top \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\top \rightarrow \perp \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\top \rightarrow \perp \rightarrow \Gamma)}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow J) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L) \\ (\Gamma \rightarrow J \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow J) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow J) \\ (\Gamma \rightarrow J \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow L) \\ (\Gamma \rightarrow J \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow \Gamma) \\ (\Gamma \rightarrow J \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L) \\ (\Gamma \rightarrow J \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow J) \\ (\Gamma \rightarrow J \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow J \rightarrow L) \rightarrow (\Gamma \rightarrow J \rightarrow \Gamma) \\ (\Gamma \rightarrow J \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow J \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L) \\ (\Gamma \rightarrow J \rightarrow \Gamma) \end{array}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow \Gamma)}$$

3. Objektale Kanäle

3.1. Chreode = (L → Γ → J)

(L → J → Γ) → (L → J → ⊥)
 (L → Γ → J)

(L → J → Γ) → (L → Γ → J)
 (L → Γ → J)

(L → J → Γ) → (L → Γ → ⊥)
 (L → Γ → J)

(L → J → Γ) → (L → ⊥ → J)
 (L → Γ → J)

(L → J → Γ) → (L → ⊥ → Γ)
 (L → Γ → J)

(L → J → Γ) → (J → L → Γ)
 (L → Γ → J)

(L → J → Γ) → (J → L → ⊥)
 (L → Γ → J)

(L → J → Γ) → (J → Γ → L)
 (L → Γ → J)

$$(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow \top)$$

$$(L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)$$

$$(L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow \top)$$

$$(L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow J)$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow J)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow J)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow L)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow J)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow J)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow \top)$$

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$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \top)$$

$$(L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow \top)$$

$$(L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \top \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (J \rightarrow \neg \rightarrow \Gamma) \\ (L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow J) \\ (L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \neg) \\ (L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow L) \\ (L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow \neg) \\ (L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L) \\ (L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow J) \\ (L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow L \rightarrow J) \\ (L \rightarrow \Gamma \rightarrow J)$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow J \rightarrow L)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow J \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow \Gamma \rightarrow J)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \Gamma \rightarrow \neg)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \neg \rightarrow J)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow \top)$$

$$(L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow \top \rightarrow J)$$

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$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\top \rightarrow L \rightarrow J)$$

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$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\top \rightarrow L \rightarrow \Gamma)$$

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$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\top \rightarrow J \rightarrow L)$$

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$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\top \rightarrow J \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow J)$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \neg)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow \neg)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow L \rightarrow \neg)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow \neg)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow L)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow J)$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow \Gamma \rightarrow J)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow L \rightarrow \neg)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow \neg)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow \neg \rightarrow L)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(L \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \neg)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow L \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow \perp \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

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$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

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$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

3.2. Chreode = (L → Γ → ⊥)

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$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(L \rightarrow \Gamma \rightarrow \top)}$$

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$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow J)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow J)}{(L \rightarrow \Gamma \rightarrow \top)}$$

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$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow J)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow J)}{(L \rightarrow \Gamma \rightarrow \top)}$$

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$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \top \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow \neg)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow L \rightarrow J)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow J \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow J \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow \Gamma \rightarrow J)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \Gamma \rightarrow \neg)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \neg \rightarrow J)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow \perp \rightarrow J)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\perp \rightarrow L \rightarrow J)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\perp \rightarrow J \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\perp \rightarrow J \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

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$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow \neg)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \top)}$$

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$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow L \rightarrow \neg)$$

$$(L \rightarrow \Gamma \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow \neg)$$

$$(L \rightarrow \Gamma \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)$$

$$(L \rightarrow \Gamma \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow \neg)$$

$$(L \rightarrow \Gamma \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \neg)$$

$$\frac{(L \rightarrow \neg \rightarrow \lrcorner) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow \lrcorner)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow L \rightarrow \neg)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow \neg)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \neg \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \lrcorner)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \lrcorner \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \lrcorner \rightarrow \neg)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow \lrcorner)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow L \rightarrow \lrcorner)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \lrcorner \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \lrcorner \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \lrcorner)}$$

$$\frac{(\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \lrcorner \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \lrcorner)}$$

$$\frac{(\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \lrcorner)}$$

$$\frac{(\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow \lrcorner)}{(L \rightarrow \Gamma \rightarrow \lrcorner)}$$

$$\frac{(\lrcorner \rightarrow L \rightarrow \lrcorner) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \lrcorner)}$$

$$\frac{(\lrcorner \rightarrow L \rightarrow \lrcorner) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow \lrcorner)}{(L \rightarrow \Gamma \rightarrow \lrcorner)}$$

$$\frac{(\lrcorner \rightarrow L \rightarrow \lrcorner) \rightarrow (\lrcorner \rightarrow \lrcorner \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \lrcorner)}$$

$$\frac{(\lrcorner \rightarrow L \rightarrow \lrcorner) \rightarrow (\lrcorner \rightarrow \lrcorner \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \lrcorner)}$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$\begin{array}{c} (\lrcorner \rightarrow L \rightarrow \top) \rightarrow (\lrcorner \rightarrow \lrcorner \rightarrow L) \\ (L \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\begin{array}{c} (\lrcorner \rightarrow L \rightarrow \top) \rightarrow (\lrcorner \rightarrow \lrcorner \rightarrow \Gamma) \\ (L \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\begin{array}{c} (\lrcorner \rightarrow L \rightarrow \top) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow L) \\ (L \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\begin{array}{c} (\lrcorner \rightarrow L \rightarrow \top) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow \lrcorner) \\ (L \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\begin{array}{c} (\lrcorner \rightarrow \Gamma \rightarrow L) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow \top) \\ (L \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\begin{array}{c} (\lrcorner \rightarrow \Gamma \rightarrow L) \rightarrow (\lrcorner \rightarrow \top \rightarrow L) \\ (L \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\begin{array}{c} (\lrcorner \rightarrow \Gamma \rightarrow L) \rightarrow (\lrcorner \rightarrow \top \rightarrow \Gamma) \\ (L \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\begin{array}{c} (\lrcorner \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \lrcorner) \\ (L \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$(\lrcorner \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \lrcorner \rightarrow \top)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\lrcorner \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\lrcorner \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \lrcorner)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\lrcorner \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \lrcorner)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\lrcorner \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\lrcorner \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \lrcorner \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\lrcorner \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \lrcorner \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\lrcorner \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \neg)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \neg)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \neg)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \neg)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \neg)$$

$$(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \neg)$$

$$(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow \neg)$$

$$(L \rightarrow \Gamma \rightarrow \neg)$$

$$(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \neg)$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$(\Gamma \rightarrow \lrcorner \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \lrcorner \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \lrcorner)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \lrcorner \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \lrcorner)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \lrcorner \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \lrcorner \rightarrow L) \rightarrow (\top \rightarrow \lrcorner \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \lrcorner \rightarrow L) \rightarrow (\top \rightarrow \lrcorner \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \lrcorner \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \lrcorner \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \lrcorner)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \top)$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\begin{array}{l} (\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow L) \\ (L \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\ (L \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\top \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow \perp \rightarrow L) \\ (L \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\top \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma) \\ (L \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\top \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L) \\ (L \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\top \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\ (L \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\top \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma) \\ (L \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\top \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L) \\ (L \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\begin{array}{c}
 (\top \rightarrow \perp \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\
 (L \rightarrow \Gamma \rightarrow \top)
 \end{array}$$

$$\begin{array}{c}
 (\top \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\
 (L \rightarrow \Gamma \rightarrow \top)
 \end{array}$$

$$\begin{array}{c}
 (\top \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\
 (L \rightarrow \Gamma \rightarrow \top)
 \end{array}$$

$$\begin{array}{c}
 (\top \rightarrow \Gamma \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\
 (L \rightarrow \Gamma \rightarrow \top)
 \end{array}$$

3.3. Chreode = ($\perp \rightarrow \Gamma \rightarrow L$)

($L \rightarrow \perp \rightarrow \Gamma$) \rightarrow ($L \rightarrow \perp \rightarrow \top$)

($\perp \rightarrow \Gamma \rightarrow L$)

($L \rightarrow \perp \rightarrow \Gamma$) \rightarrow ($L \rightarrow \Gamma \rightarrow \perp$)

($\perp \rightarrow \Gamma \rightarrow L$)

($L \rightarrow \perp \rightarrow \Gamma$) \rightarrow ($L \rightarrow \Gamma \rightarrow \top$)

($\perp \rightarrow \Gamma \rightarrow L$)

($L \rightarrow \perp \rightarrow \Gamma$) \rightarrow ($L \rightarrow \top \rightarrow \perp$)

($\perp \rightarrow \Gamma \rightarrow L$)

($L \rightarrow \perp \rightarrow \Gamma$) \rightarrow ($L \rightarrow \top \rightarrow \Gamma$)

($\perp \rightarrow \Gamma \rightarrow L$)

($L \rightarrow \perp \rightarrow \Gamma$) \rightarrow ($\perp \rightarrow L \rightarrow \Gamma$)

($\perp \rightarrow \Gamma \rightarrow L$)

($L \rightarrow \perp \rightarrow \Gamma$) \rightarrow ($\perp \rightarrow L \rightarrow \top$)

($\perp \rightarrow \Gamma \rightarrow L$)

($L \rightarrow \perp \rightarrow \Gamma$) \rightarrow ($\perp \rightarrow \Gamma \rightarrow L$)

($\perp \rightarrow \Gamma \rightarrow L$)

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow \top)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow L)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow \Gamma)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow J)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow J)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow L)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow J)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow J)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow \top) \\ (\perp \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow J) \\ (\perp \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow \Gamma) \\ (\perp \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \Gamma) \\ (\perp \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \top) \\ (\perp \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top) \\ (\perp \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow L)$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow \neg)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow L \rightarrow J)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow J \rightarrow L)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow J)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \Gamma \rightarrow \top)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \top \rightarrow J)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\neg \rightarrow L \rightarrow \neg)}{(L \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\neg \rightarrow \Gamma \rightarrow \neg)}{(L \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow L \rightarrow \neg)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow L)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow \neg)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow L)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(J \rightarrow \Gamma \rightarrow L)}$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow \neg)$$

$$(J \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)$$

$$(J \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)$$

$$(J \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow J)$$

$$(J \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)$$

$$(J \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow L)$$

$$(J \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow \Gamma)$$

$$(J \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)$$

$$(J \rightarrow \Gamma \rightarrow L)$$

$$\frac{(L \rightarrow \neg \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \neg)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \neg)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \neg \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \neg \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(\lrcorner \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \lrcorner \rightarrow L)}{(\lrcorner \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \lrcorner \rightarrow \neg)}{(\lrcorner \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(\lrcorner \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow \lrcorner)}{(\lrcorner \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow L \rightarrow \lrcorner)}{(\lrcorner \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow L \rightarrow \Gamma)}{(\lrcorner \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \lrcorner \rightarrow L)}{(\lrcorner \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow L \rightarrow \Gamma) \rightarrow (L \rightarrow L \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow L \rightarrow \Gamma) \rightarrow (L \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow L \rightarrow \Gamma) \rightarrow (L \rightarrow \Gamma \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow L \rightarrow \Gamma) \rightarrow (L \rightarrow \top \rightarrow L)}{(L \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow L \rightarrow \Gamma) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \lrcorner \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \lrcorner \rightarrow \Gamma) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \lrcorner) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \neg \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \neg \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma) \\ (\perp \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma) \\ (\perp \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow L)$$

$$\begin{array}{c} (\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{c} (\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{c} (\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{c} (\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{c} (\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{c} (\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{c} (\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{c} (\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)$$

$$(\perp \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)$$

$$(\perp \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow L)$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\begin{array}{l} (\top \rightarrow \perp \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\top \rightarrow \perp \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\top \rightarrow \perp \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\top \rightarrow \Gamma \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow \perp) \end{array}$$

3.4. Chreode = ($\lrcorner \rightarrow \Gamma \rightarrow \top$)

($L \rightarrow \lrcorner \rightarrow \Gamma$) \rightarrow ($L \rightarrow \lrcorner \rightarrow \top$)
($\lrcorner \rightarrow \Gamma \rightarrow \top$)

($L \rightarrow \lrcorner \rightarrow \Gamma$) \rightarrow ($L \rightarrow \Gamma \rightarrow \lrcorner$)
($\lrcorner \rightarrow \Gamma \rightarrow \top$)

($L \rightarrow \lrcorner \rightarrow \Gamma$) \rightarrow ($L \rightarrow \Gamma \rightarrow \top$)
($\lrcorner \rightarrow \Gamma \rightarrow \top$)

($L \rightarrow \lrcorner \rightarrow \Gamma$) \rightarrow ($L \rightarrow \top \rightarrow \lrcorner$)
($\lrcorner \rightarrow \Gamma \rightarrow \top$)

($L \rightarrow \lrcorner \rightarrow \Gamma$) \rightarrow ($L \rightarrow \top \rightarrow \Gamma$)
($\lrcorner \rightarrow \Gamma \rightarrow \top$)

($L \rightarrow \lrcorner \rightarrow \Gamma$) \rightarrow ($\lrcorner \rightarrow L \rightarrow \Gamma$)
($\lrcorner \rightarrow \Gamma \rightarrow \top$)

($L \rightarrow \lrcorner \rightarrow \Gamma$) \rightarrow ($\lrcorner \rightarrow L \rightarrow \top$)
($\lrcorner \rightarrow \Gamma \rightarrow \top$)

($L \rightarrow \lrcorner \rightarrow \Gamma$) \rightarrow ($\lrcorner \rightarrow \Gamma \rightarrow L$)
($\lrcorner \rightarrow \Gamma \rightarrow \top$)

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow \top)}{(J \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow L)}{(J \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow \Gamma)}{(J \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(J \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(J \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(J \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}{(J \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(J \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow J)}{(J \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow J)}{(J \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(J \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow L)}{(J \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(J \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(J \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow J)}{(J \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow J)}{(J \rightarrow \Gamma \rightarrow \top)}$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow \top)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow J)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \top)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)}{(J \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(J \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(J \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(J \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow \neg)}{(J \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(J \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)}{(J \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow L \rightarrow J)}{(J \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(J \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow J \rightarrow L)}{(J \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(J \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(J \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow J)}{(J \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \Gamma \rightarrow \top)}{(J \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \top \rightarrow J)}{(J \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(J \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (L \rightarrow \perp \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (L \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow L \rightarrow \neg)}{(J \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow L)}{(J \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow \neg)}{(J \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow L)}{(J \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)}{(J \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(J \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(J \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(J \rightarrow \Gamma \rightarrow \neg)}$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow \neg)$$

$$(\neg \rightarrow \Gamma \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)$$

$$(\neg \rightarrow \Gamma \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)$$

$$(\neg \rightarrow \Gamma \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow J)$$

$$(\neg \rightarrow \Gamma \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)$$

$$(\neg \rightarrow \Gamma \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow L)$$

$$(\neg \rightarrow \Gamma \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow \Gamma)$$

$$(\neg \rightarrow \Gamma \rightarrow \neg)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)$$

$$(\neg \rightarrow \Gamma \rightarrow \neg)$$

$$\frac{(L \rightarrow \neg \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \neg)}{(\perp \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \neg)}{(\perp \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \neg \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \neg \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(\neg \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(\neg \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow \neg)}{(\neg \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(\neg \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow \neg)}{(\neg \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow L \rightarrow \neg)}{(\neg \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(\neg \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow \neg \rightarrow L)}{(\neg \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow L \rightarrow \Gamma) \rightarrow (L \rightarrow L \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow L \rightarrow \Gamma) \rightarrow (L \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow L \rightarrow \Gamma) \rightarrow (L \rightarrow \Gamma \rightarrow \top)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow L \rightarrow \Gamma) \rightarrow (L \rightarrow \top \rightarrow L)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(L \rightarrow L \rightarrow \Gamma) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \Gamma \rightarrow \top)}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top) \\ (\perp \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma) \\ (\perp \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \lrcorner \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow \lrcorner)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \lrcorner \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \lrcorner)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow \lrcorner)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \lrcorner)}{(\perp \rightarrow \Gamma \rightarrow \lrcorner)}$$

$$\frac{(\perp \rightarrow L \rightarrow \lrcorner) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow \lrcorner)}$$

$$\frac{(\perp \rightarrow L \rightarrow \lrcorner) \rightarrow (\perp \rightarrow \Gamma \rightarrow \lrcorner)}{(\perp \rightarrow \Gamma \rightarrow \lrcorner)}$$

$$\frac{(\perp \rightarrow L \rightarrow \lrcorner) \rightarrow (\perp \rightarrow \lrcorner \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow \lrcorner)}$$

$$\frac{(\perp \rightarrow L \rightarrow \lrcorner) \rightarrow (\perp \rightarrow \lrcorner \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \lrcorner)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \neg \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \neg \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(\perp \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow \neg)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)$$

$$(\lrcorner \rightarrow \Gamma \rightarrow \neg)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \lrcorner \rightarrow L)$$

$$(\lrcorner \rightarrow \Gamma \rightarrow \neg)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \lrcorner \rightarrow \Gamma)$$

$$(\lrcorner \rightarrow \Gamma \rightarrow \neg)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)$$

$$(\lrcorner \rightarrow \Gamma \rightarrow \neg)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \lrcorner)$$

$$(\lrcorner \rightarrow \Gamma \rightarrow \neg)$$

$$(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \lrcorner \rightarrow L)$$

$$(\lrcorner \rightarrow \Gamma \rightarrow \neg)$$

$$(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \lrcorner \rightarrow \neg)$$

$$(\lrcorner \rightarrow \Gamma \rightarrow \neg)$$

$$(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)$$

$$(\lrcorner \rightarrow \Gamma \rightarrow \neg)$$

$$(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top)$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\top \rightarrow \perp \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\top \rightarrow \perp \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\frac{(\top \rightarrow \perp \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \top)}$$

$$\begin{array}{l} (\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\top \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\top \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma) \\ (\perp \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\top \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\top \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\top \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma) \\ (\perp \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\begin{array}{l} (\top \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow \top) \end{array}$$

$$\begin{array}{l}
 (\top \rightarrow \perp \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\
 (\perp \rightarrow \Gamma \rightarrow \perp)
 \end{array}$$

$$\begin{array}{l}
 (\top \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\
 (\perp \rightarrow \Gamma \rightarrow \perp)
 \end{array}$$

$$\begin{array}{l}
 (\top \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\
 (\perp \rightarrow \Gamma \rightarrow \perp)
 \end{array}$$

$$\begin{array}{l}
 (\top \rightarrow \Gamma \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\
 (\perp \rightarrow \Gamma \rightarrow \perp)
 \end{array}$$

3.5. Chreode = $(\perp \rightarrow \Gamma \rightarrow L)$

$(L \rightarrow \lrcorner \rightarrow \Gamma) \rightarrow (L \rightarrow \lrcorner \rightarrow \top)$

$(\perp \rightarrow \Gamma \rightarrow L)$

$(L \rightarrow \lrcorner \rightarrow \Gamma) \rightarrow (L \rightarrow \Gamma \rightarrow \lrcorner)$

$(\perp \rightarrow \Gamma \rightarrow L)$

$(L \rightarrow \lrcorner \rightarrow \Gamma) \rightarrow (L \rightarrow \Gamma \rightarrow \top)$

$(\perp \rightarrow \Gamma \rightarrow L)$

$(L \rightarrow \lrcorner \rightarrow \Gamma) \rightarrow (L \rightarrow \top \rightarrow \lrcorner)$

$(\perp \rightarrow \Gamma \rightarrow L)$

$(L \rightarrow \lrcorner \rightarrow \Gamma) \rightarrow (L \rightarrow \top \rightarrow \Gamma)$

$(\perp \rightarrow \Gamma \rightarrow L)$

$(L \rightarrow \lrcorner \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow L \rightarrow \Gamma)$

$(\perp \rightarrow \Gamma \rightarrow L)$

$(L \rightarrow \lrcorner \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow L \rightarrow \top)$

$(\perp \rightarrow \Gamma \rightarrow L)$

$(L \rightarrow \lrcorner \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow L)$

$(\perp \rightarrow \Gamma \rightarrow L)$

$$(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow \top)$$

$$(\top \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow L)$$

$$(\top \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow \Gamma)$$

$$(\top \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow J)$$

$$(\top \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)$$

$$(\top \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow L)$$

$$(\top \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow \top)$$

$$(\top \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(\top \rightarrow \Gamma \rightarrow L)$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow J)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow J)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow L)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow J)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow J)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow \top) \\ (\top \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow J) \\ (\top \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow \Gamma) \\ (\top \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \Gamma) \\ (\top \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \top) \\ (\top \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow L) \\ (\top \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow \top) \\ (\top \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \top \rightarrow L) \\ (\top \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (J \rightarrow \neg \rightarrow \Gamma) \\ (\neg \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow J) \\ (\neg \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \neg) \\ (\neg \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow L) \\ (\neg \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow \neg) \\ (\neg \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L) \\ (\neg \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow J) \\ (\neg \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow L \rightarrow J) \\ (\neg \rightarrow \Gamma \rightarrow L)$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow J \rightarrow L)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow J)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \Gamma \rightarrow \top)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \top \rightarrow J)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\neg \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\neg \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \perp)}{(\neg \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \Gamma)}{(\neg \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\neg \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \neg)}{(\neg \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\neg \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow \neg)}{(\neg \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow L \rightarrow \neg)$$

$$(\neg \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow L)$$

$$(\neg \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow \neg)$$

$$(\neg \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow L)$$

$$(\neg \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)$$

$$(\neg \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow J)$$

$$(\neg \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)$$

$$(\neg \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)$$

$$(\neg \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow \neg)$$

$$(\neg \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)$$

$$(\neg \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)$$

$$(\neg \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow J)$$

$$(\neg \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)$$

$$(\neg \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow L)$$

$$(\neg \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow \Gamma)$$

$$(\neg \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)$$

$$(\neg \rightarrow \Gamma \rightarrow L)$$

$$\frac{(L \rightarrow \neg \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\neg \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\neg \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \neg)}{(\neg \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\neg \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \neg)}{(\neg \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \neg \rightarrow L)}{(\neg \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \neg \rightarrow \Gamma)}{(\neg \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\neg \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \Gamma) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma)}{(\neg \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\neg \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\neg \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \neg \rightarrow L)}{(\neg \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \neg \rightarrow \Gamma)}{(\neg \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\neg \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(\neg \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\neg \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \Gamma) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \Gamma \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top) \\ (\perp \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)$$

$$(\neg \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow L)$$

$$(\neg \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma)$$

$$(\neg \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)$$

$$(\neg \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)$$

$$(\neg \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)$$

$$(\neg \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow \neg)$$

$$(\neg \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)$$

$$(\neg \rightarrow \Gamma \rightarrow L)$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\top \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp) \\ (\top \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \top) \\ (\top \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L) \\ (\top \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \top) \\ (\top \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L) \\ (\top \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\ (\top \rightarrow \Gamma \rightarrow L) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\top \rightarrow \Gamma \rightarrow L) \end{array}$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(\top \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\top \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(\top \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)$$

$$(\top \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)$$

$$(\top \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(\top \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)$$

$$(\top \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\top \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)$$

$$(\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \top)$$

$$(\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)$$

$$(\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \top)$$

$$(\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\top \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(\top \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \top)$$

$$(\top \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)$$

$$(\top \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \top)$$

$$(\top \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)$$

$$(\top \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\top \rightarrow \Gamma \rightarrow L)$$

$$(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(\top \rightarrow \Gamma \rightarrow L)$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\top \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow J) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow J) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow J)}{(\Gamma \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(\Gamma \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow \Gamma)}{(\Gamma \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow J)}{(\Gamma \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow J \rightarrow L) \rightarrow (\Gamma \rightarrow J \rightarrow \Gamma)}{(\Gamma \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow J \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \Gamma \rightarrow L)}$$

$$\begin{array}{l} (\Gamma \rightarrow \Delta \rightarrow \Sigma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \Delta) \\ (\Gamma \rightarrow \Gamma \rightarrow \Sigma) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \Delta \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \Sigma) \\ (\Gamma \rightarrow \Gamma \rightarrow \Sigma) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \Delta \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \Delta) \\ (\Gamma \rightarrow \Gamma \rightarrow \Sigma) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow \Gamma \rightarrow \Sigma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \Delta) \\ (\Gamma \rightarrow \Gamma \rightarrow \Sigma) \end{array}$$

3.6. Chreode = $(\neg \rightarrow \Gamma \rightarrow \perp)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \perp \rightarrow \neg)$
 $(\neg \rightarrow \Gamma \rightarrow \perp)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \Gamma \rightarrow \perp)$
 $(\neg \rightarrow \Gamma \rightarrow \perp)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \Gamma \rightarrow \neg)$
 $(\neg \rightarrow \Gamma \rightarrow \perp)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \neg \rightarrow \perp)$
 $(\neg \rightarrow \Gamma \rightarrow \perp)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (L \rightarrow \neg \rightarrow \Gamma)$
 $(\neg \rightarrow \Gamma \rightarrow \perp)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)$
 $(\neg \rightarrow \Gamma \rightarrow \perp)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \neg)$
 $(\neg \rightarrow \Gamma \rightarrow \perp)$

$(L \rightarrow \perp \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)$
 $(\neg \rightarrow \Gamma \rightarrow \perp)$

$$\begin{array}{l} (\text{L} \rightarrow \text{J} \rightarrow \Gamma) \rightarrow (\text{J} \rightarrow \Gamma \rightarrow \top) \\ (\top \rightarrow \Gamma \rightarrow \text{J}) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \text{J} \rightarrow \Gamma) \rightarrow (\text{J} \rightarrow \top \rightarrow \text{L}) \\ (\top \rightarrow \Gamma \rightarrow \text{J}) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \text{J} \rightarrow \Gamma) \rightarrow (\text{J} \rightarrow \top \rightarrow \Gamma) \\ (\top \rightarrow \Gamma \rightarrow \text{J}) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \text{J} \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \text{L} \rightarrow \text{J}) \\ (\top \rightarrow \Gamma \rightarrow \text{J}) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \text{J} \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \text{L} \rightarrow \top) \\ (\top \rightarrow \Gamma \rightarrow \text{J}) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \text{J} \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \text{J} \rightarrow \text{L}) \\ (\top \rightarrow \Gamma \rightarrow \text{J}) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \text{J} \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \text{J} \rightarrow \top) \\ (\top \rightarrow \Gamma \rightarrow \text{J}) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \text{J} \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \text{L}) \\ (\top \rightarrow \Gamma \rightarrow \text{J}) \end{array}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow J)}{(\top \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow J)}{(\top \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\top \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow L)}{(\top \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(\top \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\top \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow J)}{(\top \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow J)}{(\top \rightarrow \Gamma \rightarrow J)}$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow \top) \\ (\top \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow J) \\ (\top \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow \Gamma) \\ (\top \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \Gamma) \\ (\top \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \top) \\ (\top \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow L) \\ (\top \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow \top) \\ (\top \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \top \rightarrow L) \\ (\top \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (J \rightarrow \neg \rightarrow \Gamma) \\ (\neg \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow J) \\ (\neg \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \neg) \\ (\neg \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow L) \\ (\neg \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow \neg) \\ (\neg \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L) \\ (\neg \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow J) \\ (\neg \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow L \rightarrow J) \\ (\neg \rightarrow \Gamma \rightarrow J)$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\perp \rightarrow J \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\perp \rightarrow J \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow J)}{(\perp \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \Gamma \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \top \rightarrow J)}{(\perp \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow J)}$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \top)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow L)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow L)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\neg \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\neg \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \perp)}{(\neg \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \Gamma)}{(\neg \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\neg \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \neg)}{(\neg \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\neg \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow \neg)}{(\neg \rightarrow \Gamma \rightarrow \perp)}$$

$$\begin{array}{l} (\text{L} \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \text{L}) \\ (\perp \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma) \\ (\perp \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \text{L} \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \text{L} \rightarrow \top) \\ (\perp \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \text{L}) \\ (\perp \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \text{L}) \\ (\perp \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\top \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\top \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\top \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\top \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\top \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\top \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \top \rightarrow \Gamma)}{(\top \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\top \rightarrow \Gamma \rightarrow \perp)}$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow L \rightarrow \neg)$$

$$(\neg \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow L)$$

$$(\neg \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow \neg)$$

$$(\neg \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow L)$$

$$(\neg \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)$$

$$(\neg \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow J)$$

$$(\neg \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)$$

$$(\neg \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)$$

$$(\neg \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow \neg)$$

$$(\neg \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)$$

$$(\neg \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)$$

$$(\neg \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow J)$$

$$(\neg \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)$$

$$(\neg \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow L)$$

$$(\neg \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow \Gamma)$$

$$(\neg \rightarrow \Gamma \rightarrow J)$$

$$(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)$$

$$(\neg \rightarrow \Gamma \rightarrow J)$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow \Gamma \rightarrow J)}{(\neg \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(\neg \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow L \rightarrow \neg)}{(\neg \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\neg \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow \Gamma \rightarrow \neg)}{(\neg \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow \neg \rightarrow L)}{(\neg \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow \neg \rightarrow \Gamma)}{(\neg \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(\neg \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(\neg \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\neg \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \neg)}{(\neg \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(\neg \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow \perp)}{(\neg \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow L \rightarrow \perp)}{(\neg \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(\neg \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow \perp \rightarrow L)}{(\neg \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \bot \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \bot)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \bot)}{(\perp \rightarrow \Gamma \rightarrow \bot)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \bot)}{(\perp \rightarrow \Gamma \rightarrow \bot)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \bot)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \bot)}{(\perp \rightarrow \Gamma \rightarrow \bot)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \bot)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow \bot)}{(\perp \rightarrow \Gamma \rightarrow \bot)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \bot)}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top) \\ (\perp \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma) \\ (\perp \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$\begin{array}{l} (\lrcorner \rightarrow L \rightarrow \top) \rightarrow (\lrcorner \rightarrow \lrcorner \rightarrow L) \\ (\lrcorner \rightarrow \Gamma \rightarrow \lrcorner) \end{array}$$

$$\begin{array}{l} (\lrcorner \rightarrow L \rightarrow \top) \rightarrow (\lrcorner \rightarrow \lrcorner \rightarrow \Gamma) \\ (\lrcorner \rightarrow \Gamma \rightarrow \lrcorner) \end{array}$$

$$\begin{array}{l} (\lrcorner \rightarrow L \rightarrow \top) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow L) \\ (\lrcorner \rightarrow \Gamma \rightarrow \lrcorner) \end{array}$$

$$\begin{array}{l} (\lrcorner \rightarrow L \rightarrow \top) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow \lrcorner) \\ (\lrcorner \rightarrow \Gamma \rightarrow \lrcorner) \end{array}$$

$$\begin{array}{l} (\lrcorner \rightarrow \Gamma \rightarrow L) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow \top) \\ (\lrcorner \rightarrow \Gamma \rightarrow \lrcorner) \end{array}$$

$$\begin{array}{l} (\lrcorner \rightarrow \Gamma \rightarrow L) \rightarrow (\lrcorner \rightarrow \top \rightarrow L) \\ (\lrcorner \rightarrow \Gamma \rightarrow \lrcorner) \end{array}$$

$$\begin{array}{l} (\lrcorner \rightarrow \Gamma \rightarrow L) \rightarrow (\lrcorner \rightarrow \top \rightarrow \Gamma) \\ (\lrcorner \rightarrow \Gamma \rightarrow \lrcorner) \end{array}$$

$$\begin{array}{l} (\lrcorner \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \lrcorner) \\ (\lrcorner \rightarrow \Gamma \rightarrow \lrcorner) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \top) \\ (\perp \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \Gamma) \\ (\perp \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma)}{(\neg \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\neg \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\neg \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \neg \rightarrow L)}{(\neg \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \neg \rightarrow \Gamma)}{(\neg \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\neg \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(\neg \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\neg \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp) \\ (\top \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \top) \\ (\top \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L) \\ (\top \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \top) \\ (\top \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L) \\ (\top \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\ (\top \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp) \\ (\top \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \top) \\ (\top \rightarrow \Gamma \rightarrow \perp) \end{array}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \perp)}$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow L \rightarrow \Gamma) \\ (\neg \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow L) \\ (\neg \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma) \\ (\neg \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L) \\ (\neg \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp) \\ (\neg \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L) \\ (\neg \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\neg \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L) \\ (\neg \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \perp)$$

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$$(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow L)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \perp)$$

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$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)$$

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$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)$$

$$(\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \top)$$

$$(\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)$$

$$(\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \top)$$

$$(\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \top \rightarrow \perp)$$

$$(\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \top \rightarrow \perp)$$

$$(\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \top)$$

$$(\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)$$

$$(\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \top)$$

$$(\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)$$

$$(\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(\top \rightarrow \Gamma \rightarrow \perp)$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\top \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\top \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\top \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\top \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\top \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\top \rightarrow \perp \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\top \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\top \rightarrow \perp \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\top \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\top \rightarrow \perp \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\top \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \Gamma \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \Gamma \rightarrow \perp)}$$

4. Interpretative Kanäle

4.1. Chreode = (L → ⊥ → ⊥)

(L → ⊥ → ⊥) → (L → ⊥ → ⊥)
 (L → ⊥ → ⊥)

(L → ⊥ → ⊥) → (L → ⊥ → ⊥)
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(L → ⊥ → ⊥) → (L → ⊥ → ⊥)
 (L → ⊥ → ⊥)

(L → ⊥ → ⊥) → (L → ⊥ → ⊥)
 (L → ⊥ → ⊥)

(L → ⊥ → ⊥) → (L → ⊥ → ⊥)
 (L → ⊥ → ⊥)

(L → ⊥ → ⊥) → (⊥ → L → ⊥)
 (L → ⊥ → ⊥)

(L → ⊥ → ⊥) → (⊥ → L → ⊥)
 (L → ⊥ → ⊥)

(L → ⊥ → ⊥) → (⊥ → ⊥ → L)
 (L → ⊥ → ⊥)

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow \top)}{(L \rightarrow \top \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow L)}{(L \rightarrow \top \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(L \rightarrow \top \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \top \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(L \rightarrow \top \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}{(L \rightarrow \top \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \top \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\neg \rightarrow L \rightarrow J)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\neg \rightarrow J \rightarrow L)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\neg \rightarrow J \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\neg \rightarrow \Gamma \rightarrow J)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (L \rightarrow \Gamma \rightarrow J)}{(L \rightarrow \neg \rightarrow J)}$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow \top)$$

$$(L \rightarrow \top \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow J)$$

$$(L \rightarrow \top \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow \Gamma)$$

$$(L \rightarrow \top \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \Gamma)$$

$$(L \rightarrow \top \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \top)$$

$$(L \rightarrow \top \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \top \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow \top)$$

$$(L \rightarrow \top \rightarrow J)$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \top \rightarrow L)$$

$$(L \rightarrow \top \rightarrow J)$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow \neg)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow L \rightarrow J)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow J \rightarrow L)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow J \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow \Gamma \rightarrow J)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \Gamma \rightarrow \neg)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \neg \rightarrow J)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \top \rightarrow \perp)}$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L) \\ (L \rightarrow \neg \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow \neg) \\ (L \rightarrow \neg \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow L) \\ (L \rightarrow \neg \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow J) \\ (L \rightarrow \neg \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow J) \\ (L \rightarrow \neg \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow \Gamma) \\ (L \rightarrow \neg \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow L) \\ (L \rightarrow \neg \rightarrow J)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow \Gamma) \\ (L \rightarrow \neg \rightarrow J)$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \perp)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \neg)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow \neg)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\neg \rightarrow \neg \rightarrow L)}{(L \rightarrow \neg \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\neg \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(L \rightarrow \neg \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(L \rightarrow \neg \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(L \rightarrow \neg \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow \neg)}{(L \rightarrow \neg \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(L \rightarrow \neg \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow \neg)}{(L \rightarrow \neg \rightarrow \neg)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow L \rightarrow \neg)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow \neg)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow L)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow \neg)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow J)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow L)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\neg \rightarrow \Gamma \rightarrow J)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow L \rightarrow \neg)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow \neg)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow \neg \rightarrow L)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(L \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \neg)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow \perp)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow L \rightarrow \perp)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow \perp \rightarrow L)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \bot \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \bot)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \bot)}{(L \rightarrow \top \rightarrow \bot)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \bot)}{(L \rightarrow \top \rightarrow \bot)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(L \rightarrow \top \rightarrow \bot)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \bot)}{(L \rightarrow \top \rightarrow \bot)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(L \rightarrow \top \rightarrow \bot)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow \bot)}{(L \rightarrow \top \rightarrow \bot)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \bot)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(L \rightarrow \perp \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \perp \rightarrow \perp)}$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$\begin{array}{ccc} (\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L) \\ (L \rightarrow \top \rightarrow \perp) \end{array}$$

$$\begin{array}{ccc} (\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \top) \\ (L \rightarrow \top \rightarrow \perp) \end{array}$$

$$\begin{array}{ccc} (\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \top \rightarrow L) \\ (L \rightarrow \top \rightarrow \perp) \end{array}$$

$$\begin{array}{ccc} (\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \top \rightarrow \perp) \\ (L \rightarrow \top \rightarrow \perp) \end{array}$$

$$\begin{array}{ccc} (\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \top) \\ (L \rightarrow \top \rightarrow \perp) \end{array}$$

$$\begin{array}{ccc} (\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow L) \\ (L \rightarrow \top \rightarrow \perp) \end{array}$$

$$\begin{array}{ccc} (\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \top) \\ (L \rightarrow \top \rightarrow \perp) \end{array}$$

$$\begin{array}{ccc} (\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp) \\ (L \rightarrow \top \rightarrow \perp) \end{array}$$

$$(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \top) \\ (L \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow L) \\ (L \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (L \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L) \\ (L \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (L \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp) \\ (L \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma) \\ (L \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L) \\ (L \rightarrow \top \rightarrow \perp)$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \neg \rightarrow L)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp) \\ (L \rightarrow \top \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \top) \\ (L \rightarrow \top \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L) \\ (L \rightarrow \top \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \top) \\ (L \rightarrow \top \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \top \rightarrow L) \\ (L \rightarrow \top \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \top \rightarrow \perp) \\ (L \rightarrow \top \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp) \\ (L \rightarrow \top \rightarrow \perp) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \top) \\ (L \rightarrow \top \rightarrow \perp) \end{array}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow L)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow \neg)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \top \rightarrow \perp)}$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \perp)$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \neg \rightarrow \perp)}$$

4.2. Chreode = (L → ⊥ → ⊢)

(L → ⊥ → ⊢) → (L → ⊥ → ⊢)
(L → ⊥ → ⊢)

(L → ⊥ → ⊢) → (L → ⊢ → ⊥)
(L → ⊥ → ⊢)

(L → ⊥ → ⊢) → (L → ⊢ → ⊥)
(L → ⊥ → ⊢)

(L → ⊥ → ⊢) → (L → ⊥ → ⊥)
(L → ⊥ → ⊢)

(L → ⊥ → ⊢) → (L → ⊥ → ⊢)
(L → ⊥ → ⊢)

(L → ⊥ → ⊢) → (⊥ → L → ⊢)
(L → ⊥ → ⊢)

(L → ⊥ → ⊢) → (⊥ → L → ⊥)
(L → ⊥ → ⊢)

(L → ⊥ → ⊢) → (⊥ → ⊢ → L)
(L → ⊥ → ⊢)

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow J)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow J)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow J)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow J)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow J)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \top \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow \neg)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow L \rightarrow J)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow J \rightarrow L)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow J \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow \Gamma \rightarrow J)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \Gamma \rightarrow \neg)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \neg \rightarrow J)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow \neg)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow J)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow L)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \perp)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \neg)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow \neg)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow L \rightarrow \neg)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow \neg)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow L)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow J) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow J) \rightarrow (\Gamma \rightarrow \top \rightarrow J)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow J) \rightarrow (\top \rightarrow L \rightarrow J)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow J) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow J) \rightarrow (\top \rightarrow J \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow J) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow J) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \neg)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \neg)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \neg \rightarrow L)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \neg)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow \perp)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow L \rightarrow \perp)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow \perp \rightarrow L)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \lrcorner \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \lrcorner \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\lrcorner \rightarrow L \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow \lrcorner)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\lrcorner \rightarrow L \rightarrow \top) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\lrcorner \rightarrow L \rightarrow \top) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\lrcorner \rightarrow L \rightarrow \top) \rightarrow (\lrcorner \rightarrow \top \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\lrcorner \rightarrow L \rightarrow \top) \rightarrow (\lrcorner \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)$$

$$(L \rightarrow \top \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(L \rightarrow \top \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)$$

$$(L \rightarrow \top \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)$$

$$(L \rightarrow \top \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \top \rightarrow \Gamma)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \top \rightarrow \Gamma)$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp) \\ (L \rightarrow \top \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma) \\ (L \rightarrow \top \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L) \\ (L \rightarrow \top \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma) \\ (L \rightarrow \top \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L) \\ (L \rightarrow \top \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp) \\ (L \rightarrow \top \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp) \\ (L \rightarrow \top \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top) \\ (L \rightarrow \top \rightarrow \Gamma) \end{array}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow L)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow \neg)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(L \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(L \rightarrow \top \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)$$

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$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)$$

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$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

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$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \top \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

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$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

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$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)$$

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$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

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$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)$$

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$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

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$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)$$

$$(L \rightarrow \top \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)$$

$$(L \rightarrow \top \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(L \rightarrow \top \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)$$

$$(L \rightarrow \top \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \Gamma)$$

$$(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(L \rightarrow \top \rightarrow \Gamma)$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow J) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow J) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow J)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow J)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow J \rightarrow L) \rightarrow (\Gamma \rightarrow J \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow J \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \perp \rightarrow \Gamma)}$$

4.3. Chreode = ($\lrcorner \rightarrow \neg \rightarrow L$)

($L \rightarrow \lrcorner \rightarrow \Gamma$) \rightarrow ($L \rightarrow \lrcorner \rightarrow \neg$)
($\lrcorner \rightarrow \neg \rightarrow L$)

($L \rightarrow \lrcorner \rightarrow \Gamma$) \rightarrow ($L \rightarrow \Gamma \rightarrow \lrcorner$)
($\lrcorner \rightarrow \neg \rightarrow L$)

($L \rightarrow \lrcorner \rightarrow \Gamma$) \rightarrow ($L \rightarrow \Gamma \rightarrow \neg$)
($\lrcorner \rightarrow \neg \rightarrow L$)

($L \rightarrow \lrcorner \rightarrow \Gamma$) \rightarrow ($L \rightarrow \neg \rightarrow \lrcorner$)
($\lrcorner \rightarrow \neg \rightarrow L$)

($L \rightarrow \lrcorner \rightarrow \Gamma$) \rightarrow ($L \rightarrow \neg \rightarrow \Gamma$)
($\lrcorner \rightarrow \neg \rightarrow L$)

($L \rightarrow \lrcorner \rightarrow \Gamma$) \rightarrow ($\lrcorner \rightarrow L \rightarrow \Gamma$)
($\lrcorner \rightarrow \neg \rightarrow L$)

($L \rightarrow \lrcorner \rightarrow \Gamma$) \rightarrow ($\lrcorner \rightarrow L \rightarrow \neg$)
($\lrcorner \rightarrow \neg \rightarrow L$)

($L \rightarrow \lrcorner \rightarrow \Gamma$) \rightarrow ($\lrcorner \rightarrow \Gamma \rightarrow L$)
($\lrcorner \rightarrow \neg \rightarrow L$)

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow \top)}{(J \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow L)}{(J \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow \Gamma)}{(J \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(J \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(J \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(J \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}{(J \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(J \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow J)}{(J \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow J)}{(J \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(J \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow L)}{(J \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(J \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(J \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow J)}{(J \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow J)}{(J \rightarrow \top \rightarrow L)}$$

$$\begin{array}{ccc} (L \rightarrow J \rightarrow \top) \rightarrow & (L \rightarrow \Gamma \rightarrow \top) \\ & (J \rightarrow \top \rightarrow L) \end{array}$$

$$\begin{array}{ccc} (L \rightarrow J \rightarrow \top) \rightarrow & (L \rightarrow \top \rightarrow J) \\ & (J \rightarrow \top \rightarrow L) \end{array}$$

$$\begin{array}{ccc} (L \rightarrow J \rightarrow \top) \rightarrow & (L \rightarrow \top \rightarrow \Gamma) \\ & (J \rightarrow \top \rightarrow L) \end{array}$$

$$\begin{array}{ccc} (L \rightarrow J \rightarrow \top) \rightarrow & (J \rightarrow L \rightarrow \Gamma) \\ & (J \rightarrow \top \rightarrow L) \end{array}$$

$$\begin{array}{ccc} (L \rightarrow J \rightarrow \top) \rightarrow & (J \rightarrow L \rightarrow \top) \\ & (J \rightarrow \top \rightarrow L) \end{array}$$

$$\begin{array}{ccc} (L \rightarrow J \rightarrow \top) \rightarrow & (J \rightarrow \Gamma \rightarrow L) \\ & (J \rightarrow \top \rightarrow L) \end{array}$$

$$\begin{array}{ccc} (L \rightarrow J \rightarrow \top) \rightarrow & (J \rightarrow \Gamma \rightarrow \top) \\ & (J \rightarrow \top \rightarrow L) \end{array}$$

$$\begin{array}{ccc} (L \rightarrow J \rightarrow \top) \rightarrow & (J \rightarrow \top \rightarrow L) \\ & (J \rightarrow \top \rightarrow L) \end{array}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)}{(J \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(J \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(J \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(J \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow \neg)}{(J \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(J \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)}{(J \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow L \rightarrow J)}{(J \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(J \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow J \rightarrow L)}{(J \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow J \rightarrow \Gamma)}{(J \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(J \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow \Gamma \rightarrow J)}{(J \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \Gamma \rightarrow \neg)}{(J \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \neg \rightarrow J)}{(J \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \neg \rightarrow \Gamma)}{(J \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow \top \rightarrow L)}$$

$$(L \rightarrow \Gamma \rightarrow \lrcorner) \rightarrow (\Gamma \rightarrow \lrcorner \rightarrow L)$$

$$(\lrcorner \rightarrow \top \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \lrcorner) \rightarrow (\Gamma \rightarrow \lrcorner \rightarrow \top)$$

$$(\lrcorner \rightarrow \top \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \lrcorner) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(\lrcorner \rightarrow \top \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \lrcorner) \rightarrow (\Gamma \rightarrow \top \rightarrow \lrcorner)$$

$$(\lrcorner \rightarrow \top \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \lrcorner) \rightarrow (\top \rightarrow L \rightarrow \lrcorner)$$

$$(\lrcorner \rightarrow \top \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \lrcorner) \rightarrow (\top \rightarrow L \rightarrow \Gamma)$$

$$(\lrcorner \rightarrow \top \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \lrcorner) \rightarrow (\top \rightarrow \lrcorner \rightarrow L)$$

$$(\lrcorner \rightarrow \top \rightarrow L)$$

$$(L \rightarrow \Gamma \rightarrow \lrcorner) \rightarrow (\top \rightarrow \lrcorner \rightarrow \Gamma)$$

$$(\lrcorner \rightarrow \top \rightarrow L)$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \perp)}{(L \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\neg \rightarrow L \rightarrow \neg)}{(L \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\neg \rightarrow \Gamma \rightarrow \neg)}{(L \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow L \rightarrow \neg)}{(J \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow L)}{(J \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow \neg)}{(J \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow L)}{(J \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)}{(J \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(J \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(J \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(J \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \top \rightarrow \perp)}$$

$$\frac{(L \rightarrow \neg \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \neg)}{(\perp \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \neg)}{(\perp \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \neg \rightarrow L)}{(\perp \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \neg \rightarrow \Gamma)}{(\perp \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow L \rightarrow \Gamma) \rightarrow (L \rightarrow L \rightarrow \top)}{(L \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow L \rightarrow \Gamma) \rightarrow (L \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow L \rightarrow \Gamma) \rightarrow (L \rightarrow \Gamma \rightarrow \top)}{(L \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow L \rightarrow \Gamma) \rightarrow (L \rightarrow \top \rightarrow L)}{(L \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow L \rightarrow \Gamma) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow L)}$$

$$\begin{array}{c} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow \top \rightarrow L) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top) \\ (\perp \rightarrow \top \rightarrow L) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \top \rightarrow L) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top) \\ (\perp \rightarrow \top \rightarrow L) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L) \\ (\perp \rightarrow \top \rightarrow L) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp) \\ (\perp \rightarrow \top \rightarrow L) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \perp) \\ (\perp \rightarrow \top \rightarrow L) \end{array}$$

$$\begin{array}{c} (\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma) \\ (\perp \rightarrow \top \rightarrow L) \end{array}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \lrcorner \rightarrow L)}{(\perp \rightarrow \lrcorner \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \lrcorner \rightarrow \Gamma)}{(\perp \rightarrow \lrcorner \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \lrcorner \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \lrcorner)}{(\perp \rightarrow \lrcorner \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \lrcorner) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \lrcorner \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \lrcorner) \rightarrow (\perp \rightarrow \Gamma \rightarrow \lrcorner)}{(\perp \rightarrow \lrcorner \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \lrcorner) \rightarrow (\perp \rightarrow \lrcorner \rightarrow L)}{(\perp \rightarrow \lrcorner \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \lrcorner) \rightarrow (\perp \rightarrow \lrcorner \rightarrow \Gamma)}{(\perp \rightarrow \lrcorner \rightarrow L)}$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow L)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow L)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)$$

$$(\perp \rightarrow \top \rightarrow L)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow L)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(\perp \rightarrow \top \rightarrow L)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow L)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow L)$$

$$(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow \top \rightarrow L)$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \neg \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \neg \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \neg \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \neg \rightarrow L)}{(\perp \rightarrow \neg \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \neg \rightarrow \Gamma)}{(\perp \rightarrow \neg \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \neg \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(\perp \rightarrow \neg \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \neg \rightarrow L)}$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(\perp \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(\perp \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow \perp)$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \top)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \top \rightarrow L)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \top)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow L)}$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow L \rightarrow \Gamma) \\ (\perp \rightarrow \neg \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \neg \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma) \\ (\perp \rightarrow \neg \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L) \\ (\perp \rightarrow \neg \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp) \\ (\perp \rightarrow \neg \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \neg \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow \neg) \\ (\perp \rightarrow \neg \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L) \\ (\perp \rightarrow \neg \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow \top \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)$$

$$(\perp \rightarrow \top \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(\perp \rightarrow \top \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)$$

$$(\perp \rightarrow \top \rightarrow L)$$

$$(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow L)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)$$

$$(\perp \rightarrow \top \rightarrow L)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)$$

$$(\perp \rightarrow \top \rightarrow L)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow L)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow L)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)$$

$$(\perp \rightarrow \top \rightarrow L)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)$$

$$(\perp \rightarrow \top \rightarrow L)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)$$

$$(\perp \rightarrow \top \rightarrow L)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)$$

$$(\perp \rightarrow \top \rightarrow L)$$

$$(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow L)$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\begin{array}{l}
 (\Gamma \rightarrow \Delta \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \Delta) \\
 (\Delta \rightarrow \neg \rightarrow L)
 \end{array}$$

$$\begin{array}{l}
 (\Gamma \rightarrow \Delta \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L) \\
 (\Delta \rightarrow \neg \rightarrow L)
 \end{array}$$

$$\begin{array}{l}
 (\Gamma \rightarrow \Delta \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \Delta) \\
 (\Delta \rightarrow \neg \rightarrow L)
 \end{array}$$

$$\begin{array}{l}
 (\Gamma \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \Delta) \\
 (\Delta \rightarrow \neg \rightarrow L)
 \end{array}$$

4.4. Chreode = ($\lrcorner \rightarrow \neg \rightarrow \Gamma$)

$$\begin{array}{l} (\text{L} \rightarrow \lrcorner \rightarrow \Gamma) \rightarrow (\text{L} \rightarrow \lrcorner \rightarrow \neg) \\ (\lrcorner \rightarrow \neg \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \lrcorner \rightarrow \Gamma) \rightarrow (\text{L} \rightarrow \Gamma \rightarrow \lrcorner) \\ (\lrcorner \rightarrow \neg \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \lrcorner \rightarrow \Gamma) \rightarrow (\text{L} \rightarrow \Gamma \rightarrow \neg) \\ (\lrcorner \rightarrow \neg \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \lrcorner \rightarrow \Gamma) \rightarrow (\text{L} \rightarrow \neg \rightarrow \lrcorner) \\ (\lrcorner \rightarrow \neg \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \lrcorner \rightarrow \Gamma) \rightarrow (\text{L} \rightarrow \neg \rightarrow \Gamma) \\ (\lrcorner \rightarrow \neg \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \lrcorner \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \text{L} \rightarrow \Gamma) \\ (\lrcorner \rightarrow \neg \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \lrcorner \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \text{L} \rightarrow \neg) \\ (\lrcorner \rightarrow \neg \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\text{L} \rightarrow \lrcorner \rightarrow \Gamma) \rightarrow (\lrcorner \rightarrow \Gamma \rightarrow \text{L}) \\ (\lrcorner \rightarrow \neg \rightarrow \Gamma) \end{array}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow \top)}{(J \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow L)}{(J \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow \Gamma)}{(J \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(J \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(J \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(J \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}{(J \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(J \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow J)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow J)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow J)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow J)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow \top)}{(J \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow J)}{(J \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(J \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \Gamma)}{(J \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \top)}{(J \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow L)}{(J \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow \top)}{(J \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \top \rightarrow L)}{(J \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)}{(J \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(J \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(J \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(J \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow \neg)}{(J \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(J \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)}{(J \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow L \rightarrow J)}{(J \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(J \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow J \rightarrow L)}{(J \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow J \rightarrow \Gamma)}{(J \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(J \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow \Gamma \rightarrow J)}{(J \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \Gamma \rightarrow \neg)}{(J \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \neg \rightarrow J)}{(J \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \neg \rightarrow \Gamma)}{(J \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L) \\ (\perp \rightarrow \top \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow \top) \\ (\perp \rightarrow \top \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow \top \rightarrow L) \\ (\perp \rightarrow \top \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow \top \rightarrow J) \\ (\perp \rightarrow \top \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\perp \rightarrow L \rightarrow J) \\ (\perp \rightarrow \top \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\perp \rightarrow L \rightarrow \Gamma) \\ (\perp \rightarrow \top \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\perp \rightarrow J \rightarrow L) \\ (\perp \rightarrow \top \rightarrow \Gamma)$$

$$(L \rightarrow \Gamma \rightarrow J) \rightarrow (\perp \rightarrow J \rightarrow \Gamma) \\ (\perp \rightarrow \top \rightarrow \Gamma)$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \perp)}{(\perp \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \Gamma)}{(\perp \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \neg)}{(\perp \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow \neg)}{(\perp \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow L \rightarrow \neg)}{(J \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow L)}{(J \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow \neg)}{(J \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow L)}{(J \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)}{(J \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(J \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(J \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(J \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \neg)}{(\perp \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \neg)}{(\perp \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \neg \rightarrow L)}{(\perp \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \neg \rightarrow \Gamma)}{(\perp \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(L \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

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$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \lrcorner \rightarrow \Gamma)}{(\perp \rightarrow \lrcorner \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \lrcorner \rightarrow \Gamma)}{(\perp \rightarrow \lrcorner \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \lrcorner)}{(\perp \rightarrow \Gamma \rightarrow \lrcorner)}$$

$$\frac{(\perp \rightarrow L \rightarrow \lrcorner) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \lrcorner) \rightarrow (\perp \rightarrow \Gamma \rightarrow \lrcorner)}{(\perp \rightarrow \Gamma \rightarrow \lrcorner)}$$

$$\frac{(\perp \rightarrow L \rightarrow \lrcorner) \rightarrow (\perp \rightarrow \lrcorner \rightarrow L)}{(\perp \rightarrow \lrcorner \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \lrcorner) \rightarrow (\perp \rightarrow \lrcorner \rightarrow \Gamma)}{(\perp \rightarrow \lrcorner \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

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$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

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$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \neg \rightarrow \Gamma)}$$

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$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \neg \rightarrow L)}{(\perp \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \neg \rightarrow \Gamma)}{(\perp \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(\perp \rightarrow \neg \rightarrow \Gamma)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \neg \rightarrow \Gamma)}$$

$$(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)$$

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$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

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$$\frac{(\Gamma \rightarrow \perp \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

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$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow L \rightarrow \Gamma) \\ (\perp \rightarrow \neg \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \neg \rightarrow \Gamma) \end{array}$$

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$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow L) \\ (\perp \rightarrow \neg \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow \neg) \\ (\perp \rightarrow \neg \rightarrow \Gamma) \end{array}$$

$$\begin{array}{l} (\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L) \\ (\perp \rightarrow \neg \rightarrow \Gamma) \end{array}$$

$$(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

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$$(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)$$

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$$(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \perp)$$

$$(\perp \rightarrow \top \rightarrow \Gamma)$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \top \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\perp \rightarrow \Gamma \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \Gamma)}{(\perp \rightarrow \Gamma \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\perp \rightarrow \Gamma \rightarrow \Gamma)}$$

$$\begin{array}{c}
 (\neg \rightarrow \neg \rightarrow \neg) \rightarrow (\neg \rightarrow \neg \rightarrow \neg) \\
 (\neg \rightarrow \neg \rightarrow \neg)
 \end{array}$$

$$\begin{array}{c}
 (\neg \rightarrow \neg \rightarrow \neg) \rightarrow (\neg \rightarrow \neg \rightarrow \neg) \\
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 \end{array}$$

$$\begin{array}{c}
 (\neg \rightarrow \neg \rightarrow \neg) \rightarrow (\neg \rightarrow \neg \rightarrow \neg) \\
 (\neg \rightarrow \neg \rightarrow \neg)
 \end{array}$$

4.5. Chreode = $(\Gamma \rightarrow \neg \rightarrow L)$

$(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (L \rightarrow \neg \rightarrow \neg)$
 $(\Gamma \rightarrow \neg \rightarrow L)$

$(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (L \rightarrow \Gamma \rightarrow \neg)$
 $(\Gamma \rightarrow \neg \rightarrow L)$

$(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (L \rightarrow \Gamma \rightarrow \neg)$
 $(\Gamma \rightarrow \neg \rightarrow L)$

$(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (L \rightarrow \neg \rightarrow \neg)$
 $(\Gamma \rightarrow \neg \rightarrow L)$

$(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (L \rightarrow \neg \rightarrow \Gamma)$
 $(\Gamma \rightarrow \neg \rightarrow L)$

$(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)$
 $(\Gamma \rightarrow \neg \rightarrow L)$

$(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow L \rightarrow \neg)$
 $(\Gamma \rightarrow \neg \rightarrow L)$

$(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)$
 $(\Gamma \rightarrow \neg \rightarrow L)$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow J)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow J)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow J)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow J)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow J)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (J \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow J \rightarrow \neg)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (\neg \rightarrow L \rightarrow J)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow J \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow J \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow J)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \top \rightarrow J)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

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$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow \neg)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow J)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow L)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow J) \rightarrow (\neg \rightarrow J \rightarrow \Gamma)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \perp)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (L \rightarrow \neg \rightarrow \Gamma)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow L \rightarrow \neg)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \neg) \rightarrow (\perp \rightarrow \Gamma \rightarrow \neg)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (L \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow L \rightarrow \neg)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \Gamma \rightarrow \neg)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow L)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow \neg \rightarrow \Gamma)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow J)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow L \rightarrow \neg)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow J) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \neg)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \neg)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \neg \rightarrow L)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\perp \rightarrow \neg \rightarrow \Gamma)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(L \rightarrow \neg \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \Gamma \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\perp \rightarrow \top \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\perp \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow \neg)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(\Gamma \rightarrow \neg \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \perp \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \top) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow L) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \top \rightarrow \perp) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\top \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow J) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow J) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow J)}{(\Gamma \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow L)}{(\Gamma \rightarrow J \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow J \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow J)}{(\Gamma \rightarrow \Gamma \rightarrow J)}$$

$$\frac{(\Gamma \rightarrow J \rightarrow L) \rightarrow (\Gamma \rightarrow J \rightarrow \Gamma)}{(\Gamma \rightarrow J \rightarrow \Gamma)}$$

$$\frac{(\Gamma \rightarrow J \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \Gamma \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \perp \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

$$\frac{(\Gamma \rightarrow \Gamma \rightarrow L) \rightarrow (\Gamma \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \perp \rightarrow L)}$$

4.6. Chreode = ($\Gamma \rightarrow \neg \rightarrow \perp$)

($L \rightarrow \perp \rightarrow \Gamma$) \rightarrow ($L \rightarrow \perp \rightarrow \neg$)
($\Gamma \rightarrow \neg \rightarrow \perp$)

($L \rightarrow \perp \rightarrow \Gamma$) \rightarrow ($L \rightarrow \Gamma \rightarrow \perp$)
($\Gamma \rightarrow \neg \rightarrow \perp$)

($L \rightarrow \perp \rightarrow \Gamma$) \rightarrow ($L \rightarrow \Gamma \rightarrow \neg$)
($\Gamma \rightarrow \neg \rightarrow \perp$)

($L \rightarrow \perp \rightarrow \Gamma$) \rightarrow ($L \rightarrow \neg \rightarrow \perp$)
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($L \rightarrow \perp \rightarrow \Gamma$) \rightarrow ($L \rightarrow \neg \rightarrow \Gamma$)
($\Gamma \rightarrow \neg \rightarrow \perp$)

($L \rightarrow \perp \rightarrow \Gamma$) \rightarrow ($\perp \rightarrow L \rightarrow \Gamma$)
($\Gamma \rightarrow \neg \rightarrow \perp$)

($L \rightarrow \perp \rightarrow \Gamma$) \rightarrow ($\perp \rightarrow L \rightarrow \neg$)
($\Gamma \rightarrow \neg \rightarrow \perp$)

($L \rightarrow \perp \rightarrow \Gamma$) \rightarrow ($\perp \rightarrow \Gamma \rightarrow L$)
($\Gamma \rightarrow \neg \rightarrow \perp$)

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \Gamma \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (J \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow J)}$$

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$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\Gamma \rightarrow \neg \rightarrow J)}{(\Gamma \rightarrow \neg \rightarrow J)}$$

$$\frac{(L \rightarrow J \rightarrow \Gamma) \rightarrow (\neg \rightarrow L \rightarrow J)}{(\Gamma \rightarrow \neg \rightarrow J)}$$

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$$\frac{(L \rightarrow J \rightarrow \neg) \rightarrow (L \rightarrow \Gamma \rightarrow J)}{(\Gamma \rightarrow \neg \rightarrow J)}$$

$$(L \rightarrow J \rightarrow \top) \rightarrow (L \rightarrow \Gamma \rightarrow \top) \\ (\Gamma \rightarrow \top \rightarrow J)$$

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$$(L \rightarrow J \rightarrow \neg) \rightarrow (J \rightarrow \neg \rightarrow \Gamma) \\ (\Gamma \rightarrow \neg \rightarrow J)$$

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$$\frac{(L \rightarrow J \rightarrow \top) \rightarrow (\top \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow J)}$$

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$$\frac{(L \rightarrow \Gamma \rightarrow \perp) \rightarrow (\neg \rightarrow \Gamma \rightarrow L)}{(\Gamma \rightarrow \neg \rightarrow \perp)}$$

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$$\frac{(L \rightarrow \Gamma \rightarrow \top) \rightarrow (\perp \rightarrow \top \rightarrow L)}{(\Gamma \rightarrow \top \rightarrow \perp)}$$

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$$(L \rightarrow \neg \rightarrow J) \rightarrow (J \rightarrow L \rightarrow \neg)$$

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$$\frac{(L \rightarrow \top \rightarrow \Gamma) \rightarrow (\perp \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \top \rightarrow \perp)}$$

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$$\frac{(\perp \rightarrow \Gamma \rightarrow L) \rightarrow (\neg \rightarrow \perp \rightarrow \Gamma)}{(\Gamma \rightarrow \neg \rightarrow \perp)}$$

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$$\frac{(\perp \rightarrow \top \rightarrow \Gamma) \rightarrow (\top \rightarrow \Gamma \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\Gamma \rightarrow L \rightarrow \top)}{(\Gamma \rightarrow \top \rightarrow \perp)}$$

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$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\top \rightarrow L \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow L \rightarrow \Gamma)}{(\Gamma \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \perp) \rightarrow (\neg \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \neg \rightarrow \perp)}$$

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$$\frac{(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow L)}{(\Gamma \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \perp \rightarrow \neg)}{(\Gamma \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \neg) \rightarrow (\Gamma \rightarrow \neg \rightarrow L)}{(\Gamma \rightarrow \neg \rightarrow \perp)}$$

$$\frac{(\Gamma \rightarrow L \rightarrow \top) \rightarrow (\Gamma \rightarrow \top \rightarrow \perp)}{(\Gamma \rightarrow \top \rightarrow \perp)}$$

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