

**Prof. Dr. Alfred Toth**

**Toth's Catalog  
of semiotic CA-Patterns**

**Part 2**



## 1. Preface

First, I would like to point out that the choice of the title of my work is a reference and reverence, but by no means an emulation of the 5 parts of „Kähr's Catalogs“ (2015-2016), in which the great mathematician and logician Rudolf Kaehr (1942-2016) completed his life-long studies about qualitative mathematics and their visualization and intonation.

While Kaehr had studied morphic cellular automata, I concentrate on semiotic CA's. Both ways of qualitative mathematics are based on Gotthard Gunthers landmark work on poly-contextural systems and Engelbert Kronthaler's first comprehensive depiction of a qualitative mathematics based on proto-, deuterio- and trito-numbers.

My own work, however, is restricted to the data base given in volume 1 of my work „Vermittlung topologischer semiotischer Relation“ in 65 volumes. Moreover, since I work with topologically open, half-open and closed dyadic-trichotomic sign relation, cellular automata can be defined, but not visualized, in their dynamic growth. Regrettably, I was not even able to show the structure of pairs of mediated CA's by aid of colors.

For a comprehensive introduction to the theoretical framework used in the two volumes of my present work, please consult the first chapter of the first volume of my data base mentioned above.

Volume 1 shows the 20 qualitative groups of reflective mediated topological sign relations using Peano numbers, while volume 2 shows them in kenogrammatic symbols.

At this place, it only remains for me to add that, hopefully, it will be possible anytime soon to construct cellular automata with topological closures.

Tucson, AZ, May 19, 2019

Prof. Dr. Alfred Toth

























































































































































































































































































































































































































































































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