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# Cellular Automata Rules and Linear Numbers

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In this paper, linear Cellular Automata (CA) rules are recursively generated using a binary tree rooted at "0". Some mathematical results on linear as well as non-linear CA rules are derived. Integers associated with linear CA rules are defined as linear numbers and the properties of these linear numbers are studied.

Comments: 7 pages and 3 figures

Subjects: **Cellular Automata and Lattice Gases (nlin.CG)**; Dynamical Systems (math.DS)

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