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# Cellular automata, tilings and undecidability

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## Abstract

Cellular automata and tilings are strictly related. Indeed, any evolution of a one-dimensional cellular automaton produces a tiling. In their turn tilings are connected to undecidability via the domino tiling problem. These connections opened the pathway to many proofs on the dynamical behavior of cellular automata and other symbolic dynamical systems. We will survey some of these historical proofs and show some recent developments about directional expansivity of cellular automata.

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