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# Modular automata networks

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## Résumé

Automata networks are dynamical systems, and computing the limit cycles and fixed points (the attractors) of these networks directly is exponential in their size. In this talk we present a modular variation of these networks with added inputs. By focusing the acyclic case, we are able to characterise the attractors of a network by the use of output functions. These output functions allow for the description of equivalence classes, but also an optimisation method for the size of networks, a direct and faster way of computing attractors and a transformation of the problem of computing attractors into various other combinatorial problems.

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