

Presentation Abstract

Automata with Three Types of Constraints

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Constrained automaton (CA) is a pair of a finite automaton A and a semilinear set C which is called a constraint. A CA (A, C) recognises a word w if there is an accepting run ρ of w in A and the number of occurrences of each transition rule in ρ “satisfies” the semilinear constraint C . In this presentation we introduce a new extension of a CA that is endowed with two additional different types of constraints. We then prove that this extended model can recognise some languages that can not be recognised by any CA. Further, we investigate some closure properties and decidability results on the extended models.

This is the abstract of an unrefereed presentation, and it should not preclude subsequent publication.

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