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Using symbol classification on multi-tape automata with symbol classes on rational kernel releated problems

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Abstract

In this paper I propose a new algorithm for multi-tape automata with symbol classes and identity and non-identity constraints (in short *MASCIN*). MASCIN generalizes both classical single or multi-tape machines and machines with extended alphabet. This generalization can be automatically applied with a special new algorithm family called symbol classification designed for MASCINs. Choosing the right symbol classification method always depends on the current problem that we would like to solve, on the structure and the size of the alphabet of the original multi-tape automaton, which can be a MASCIN as well. I would like to present a symbol classification algorithm dedicated for rational kernels. Finally, i describe the result of applying this classification method for rational kernels in performance tests.

Keywords: WFSC, Symbol classes, Classification, Rational kernels

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