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Pseudo-deterministic finite automata (PDFA) as language acceptors

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Abstract. In this paper, we introduce the notion of pseudo-deterministic finite automata (PDFA) as an extension of standard deterministic finite automata (DFA) bridging the gap between deterministic finite automata (DFA) and non-deterministic finite automata (NFA). We further study the language acceptance capability of PDFA. Finally, we show the equivalence of PDFA with DFA and NFA.

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