Abstract

On the Inclusion Problem for
Context-free Real-time Languages

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We introduce the class of event-clock visibly pushdown automata (ECV-PAs) by combining the ideas of event-clock automata and visibly pushdown automata. The class of ECVPAs is, on one hand, enough to model simple real-time pushdown systems and, on the other hand, determinizable and closed under boolean operations. We also show that for a timed visibly pushdown automaton A and an ECVPA B, the inclusion problem $L(A) \subseteq L(B)$ is decidable.

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