

# Approximate Equivalence of Hybrid Automata with Taylor Theory

## Informal Communication

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### Abstract

The hybrid automaton is a formal model for precisely describing hybrid systems in which the computational processes interact with the physical processes. The reachability analysis of the polynomial hybrid automaton is decidable, which makes the Taylor approximation of a common hybrid automaton applicable and valuable. We study the simulation relations of hybrid automata and their Taylor approximations as well as approximate equivalence relations.

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