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Fighting the Clocks Explosion

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Abstract

In this talk I will survey several heroic as well as pathetic attempts to fight the clock explosion problem, that is, to find ways to scale-up the automated analysis of timed automata beyond toy problems. The survey will be biased toward efforts I was involved in and will include directions such as BDDs and canonical representations, discretization, search-based techniques, SAT and bounded model-checking, abstraction and partial-order methods. I will also explain why I think this battle is important.

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