
Energy Büchi Problems

Sven Dziadek¹, Uli Fahrenberg^{*1}, and Philipp Schlehuber-Caissier¹

¹LRE, EPITA – LRE, EPITA – France

Résumé

We show how to efficiently solve energy Büchi problems in finite weighted automata and in one-clock weighted timed automata. Solving the former problem is our main contribution and is handled by a modified version of Bellman-Ford interleaved with Couvreur’s algorithm. The latter problem is handled via a reduction to the former relying on the corner-point abstraction. All our algorithms are freely available and implemented in a tool based on the open source frameworks TChecker and Spot.

*Intervenant