

# Cyclic scheduling with Timed Automata

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Timed Automata has been introduced by Alur and Dill in 1994[1] to model the behavior of real-time discrete-event-systems. Later, Behrmann et. al.[2] extended the mathematical model with a cost function to apply the available tools for optimization purposes. While MILP formulations and digraph based approaches dominate the field of production scheduling, several works have been published utilizing the Linearly Priced Timed Automata (LPTA) model for such purposes[3, 4, 5].

In this work, the applicability and scalability of the LPTA model for cyclic scheduling problems is examined, which poses a challenging modeling problem for traditional approaches.

## References

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