

Games, Automata, and Logic-based System Design

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Games have shown to provide a useful paradigm for reasoning about reactive systems. Not only can model-checking algorithms be formulated as games, but the interaction of reactive systems with their environments can also be modeled as a game. The aim of this course is to demonstrate the power of the game-theoretic approach, by showing how it gives rise to a unifying algorithmic framework through the use of automata as an underlying technical tool.

References

1. M.Y. Vardi. *An automata-theoretic approach to linear temporal logic*, In: Logics for Concurrency: Structure versus Automata, LNCS 1043, pp: 238-266, Springer-Verlag, 1996