Evaluating Learning Automata as a Model for Cooperation in Complex Multi-agent Domains

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Abstract

Learning automata act in a stochastic environment and are abl to update their action probabilities considering the inputs from their environment, so optimizing their functionality as a result. this paper, the goal is to investigate and evaluate the applicati of learning automata to cooperation in multi-agent systems, using soccer simulation server as a test bed. We have also evaluated our learning method in hard situations such as malfunctioning of some of the agents in the team and in situations that agents' sense/act abilities have a lot of noise involved. Our experiment results show that learning automata adapt well with these situations.

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References secured to subscribers.