

Machine Learning Applications in High Dimensional Stochastic Control

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Message from the Guest Editor

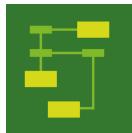
Dear Colleagues,

Decision-theoretic planning is naturally formulated and solved using a discrete-time stochastic control framework. One of the main research areas here deals with the following situation: Starting from a random terminal value of a sequential decision problem, a non-linear recursion computes the value of a strategy at a given time from its expectation one-time step ahead. Such nesting in the calculations causes a deviation from the true value, which is inevitably progressing through all time steps of the backward induction. The proposed special issue of "Algorithms" focuses on a modern development: Unlike in the classical approximate dynamic programming, an optimal policy can be approached using neural networks techniques.



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Message from the Editor-in-Chief

Algorithms are the very core of Computer Science. The whole area has been considered from quite different perspectives, having led to the development of many sub-communities: Complexity theory (limitations), approximation or parameterized algorithms (types of problems), geometric algorithms (subject area), metaheuristics, algorithm engineering, medical imaging (applications), indicates the range of perspectives. Our journal welcomes submissions written from any of these perspectives, so that it may become a forum for exchange of ideas between the corresponding scientific subcommunities.

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