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Markov Decision Processes with Applications

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Message from the Guest Editors

Dear Colleagues,

Markov decision process (MDP), also known as stochastic dynamic programming, is a mathematical framework for dynamic and sequential decision-making under stochastic uncertainty. MDPs have been investigated extensively and informed sequential decision-making in a variety of application areas including reinforcement learning, finance, inventory control, scheduling, and clinical trials, just to name a few. The purpose of this Special Issue is to collect and present some state-of-the-art developments in the theory, methodology and applications of MDPs.

Keywords

- Markov processes
- stochastic control
- dynamic programming
- decision making
- reinforcement learning

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Message from the Editor-in-Chief

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