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Stochastic Programming: Theory, Methods, and Applications

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Message from the Guest Editors

Stochastic programming and optimization is a widely adopted tool for decision-making problems under uncertainty and has seen advances in risk measures, distributionally robust optimization, and applications in energy and natural resources, economics and finance, statistics and machine learning. This Special Issue aims at the state of art in theory, methods, and applications of stochastic programming. Topics include but are not limited to:

- Theoretical analyses of dynamic stochastic programming, including structural analysis, stability analysis, asymptotic analysis, consistency, and rates of convergence;
- Numerical algorithms for solving stochastic programming problems, including issues such as scenario generation or reduction, sampling methods such as sample (average) approximation, stochastic gradient methods, and decomposition techniques;
- Applications of dynamic stochastic programming for the modeling and solution of academic problems such as multi-player game problems, machine learning, and practical problems such as financial planning, risk management, dynamic resource allocation, airline scheduling, and unit commitment in power systems.







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Message from the Editor-in-Chief

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