

Call for Papers

Mathematical Programming, Series B

Special issue on **The interface between optimization and probability**

Probability theory and the theory of optimization jointly form the theoretical basis of several other fields of research. Important examples are statistics, stochastic optimization, and the theory of risk measures. Additionally, optimization as well as probability theory benefit from each other directly. Examples include the theory of optimal inequalities in probability theory and randomization approaches in optimization such as stochastic gradient descent and the theory of metaheuristics.



This special issue aims at attracting state-of-the-art contributions that combine optimization and probability theory in an innovative way and transcend narrow disciplinary thinking. Since the notion of *risk* is inherently probabilistic and the theory of risk measures is deeply rooted in optimization, the issue puts an emphasis on the measurement and management of risk in a variety of contexts.

Possible topics include but are not limited to:

1. Risk measures in stochastic optimization
2. Risk measures and distributionally robust optimization
3. Statistical risk and novel applications of optimization in statistics
4. Randomized optimization algorithms
5. Risk and probabilistic aspects in stochastic control and stochastic dynamic optimization
6. Financial risk and novel applications of optimization in asset pricing for incomplete markets

Papers should focus on methodological aspects, although parts of a paper may contain discussions of applications. Moreover, submitted papers should fit into the general scope of Mathematical Programming and will be reviewed according to the standards of Mathematical Programming, Series A. Due to page limits of the volume, we are requesting that all papers be submitted using MP style files, and conform to a maximum of 25 pages. The deadline for submission of full papers is the 28.02.2018. We aim at completing a first review of all submissions by the 30.06.2018. Authors should submit their manuscripts via <http://www.editorialmanager.com/mapr/> and select Jong-Shi Pang as the handling editor for consideration in this special issue.

Additional information about the special issue can be obtained from the guest editors.

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