Call for Papers

Annals of Operations Research

Special Issue: Recent Advances in Mathematical Methods for Finance

Annals of Operations Research invites submissions for a special issue on **Recent Advances in Mathematical Methods for Finance.** The deadline for submissions is **November 30, 2021**.

In recent years, financial markets have been impacted by new sources of risk, accompanied by the rapid development of financial and computational technologies. This has led to the emergence of several innovative lines of research in mathematical finance. Advanced methods from stochastic control theory, such as mean-field games and principal-agent models, applied to the study of market microstructure, are leading to a deeper understanding of the interaction among market participants. Climate risk, renewable energies and sustainable finance are starting to be explored by relying on the stochastic toolbox of mathematical finance. At the same time, modern machine learning techniques allow for the solution of new and old problems deemed unsolvable up to now.

Annals of Operations Research is inviting submission for a special issue on Recent Advances in Mathematical Methods for Finance, targeting original contributions in emerging topics of mathematical finance, including theoretical aspects and computational techniques. Topics of interest include, but are not limited to:

- Algorithmic trading and financial technologies
- Asset pricing under market frictions
- Collateralization and XVA
- Credit risk and interest rate modeling
- Energy and commodity markets
- Equilibrium and principal-agents models
- Climate risk, green and sustainable finance
- Machine learning and computational methods in finance
- Market microstructure
- Mean-field games and McKean–Vlasov equations

- Model uncertainty, model risk and robust finance
- Risk measures
- Stochastic control and portfolio optimization
- Stochastic volatility modeling
- Systemic risk and financial networks

Instructions for authors can be found at:
https://www.springer.com/journal/10479/submission-guidelines

Authors should submit a cover letter and a manuscript by **November 30, 2021**, via the Journal's online submission site. Please see the Author Instructions on the web site if you have not yet submitted a paper through Springer's web-based system, Editorial Manager. When prompted for the article type, please select **Original Research**. On the Additional Information screen you will be asked if the manuscript belongs to a special issue, please choose yes and the special issue's title, **Recent Advances in Mathematical Methods for Finance**, to ensure that it will be reviewed for this special issue.

Manuscripts submitted after the deadline may not be considered for the special issue and may be transferred, if accepted, to a regular issue. Papers will be subject to a strict review process under the supervision of the Guest Editors, and accepted papers will be published online individually, before print publication.

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