CALL FOR PAPERS

ANNALS OF OPERATIONS RESEARCH

SPECIAL ISSUE: RISK MODELS IN BANKING AND FINANCE: NETWORKS, DATA ANALYTICS AND COMPLEX SYSTEMS

The *Annals of Operations Research* invites submissions for a special issue on **Risk Models in Banking and Finance: Networks, Data Analytics and Complex Systems**. The call is open to all researchers in this area. The deadline for submission is **December 31, 2020**.

Submitted papers should not have been published previously nor be currently under consideration for publication elsewhere. Papers arising from a conference should be substantially extended, and should cite the conference paper where appropriate.

The area of banking and finance features many complex, nonlinear, dynamic and stochastic problems that often call for the applications of advanced operations research (OR) methods for better understanding of the underlying processes of the data. This becomes particularly critical when we enter the era of big data with huge challenges of analytics, visualization and interpretations. The variety in big data types such high-frequency, structured, unstructured, geographic, real-time, weather, time series, event, network, sentiment and linked data also make the data analytics much more challenging.

This special issue aims to represent a collection of papers that exploit recent advances in the application of OR to state-of-the-art modeling techniques in banking and finance. Main topics of interest include, but are not limited to:

- Big data applications
- Climate risk modeling
- Forecasting weather risk
- High frequency applications for trading and risk management
- Market microstructure and algorithmic trading
- Market anomalies and inefficiencies
- Modeling financial processes with artificial intelligence methods
- Network modeling and analysis
- Portfolio optimization
- Quantitative trading strategies
- Sentiment analysis
- Volatility forecasts
- Volatility as an asset class

SUBMISSION DEADLINE AND INSTRUCTIONS

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 **December 31, 2020** via the Journal's online submission site, Editorial Manager. Manuscripts submitted after the deadline may not be considered for the special issue and may be transferred to a regular issue.

Please see the Author instructions on the Web site, if you have not submitted a paper through Editorial Manager. When prompted for the article type, please select **Original Research**. You will then be asked if the manuscript belongs to a special issue, please choose the special issue's title, **Risk Models in Banking and Finance: Networks, Data Analytics and Complex Systems** to ensure that it will be reviewed for this special issue.

Papers will be subject to a strict review process managed by the Guest Editors and accepted papers will be published online individually, prior to print publication.

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- Ahmet Sensoy, *Bilkent University, Ankara, Turkey* (ahmet.sensoy@bilkent.edu.tr)
- Nikolas Topaloglou, *Athens University of Economics and Business, Athens, Greece* (nikolas@aueb.gr)

Selected publications of the Guest-Editors

Al Janabi, M.A.M., Arreola Hernandez, J., Berger, T., **Nguyen, D.K.** (2017). Multivariate dependence and portfolio optimization algorithms under illiquid market scenarios. *European Journal of Operational Research* 259 (3), 1121–1131.

Bekiros, S., **Nguyen, D.K.**, Sandoval Jr, L., Uddin, G.S. (2017). Information diffusion, cluster formation and entropy-based network dynamics in equity and commodity markets. *European Journal of Operational Research* 256 (3), 945–961.

Choukroun, S., **Goutte, S**. and Ngoupeyou, A. (2015). Mean variance hedging under multiple defaults risk. *Stochastic Analysis and Applications* 33, p757–791.

Christodoulakis, G., Mohamed, A., **Topaloglou, N.**, 2017. Privatization portfolios in the presence of arbitrary risk aversion: Global evidence. *European Journal of Operational Research*, 265(3), 2017.

Gaigi, M., **Goutte, S.**, Kharroubi, I. and Lim, T. (2019). Optimal risk management problem of natural resources: Application to oil drilling. *Annals of Operations Research*, forthcoming.

Sensoy, A., **Nguyen, D.K.**, Rostom, A., Hacihasanoglu, E., 2019. Dynamic integration and network structure of the EMU sovereign bond markets. *Annals of Operations Research*, 281 (1-2), 297-314, 2019.

Topaloglou, N., Vladimirou, H., Zenios, S., 2019. Integrated dynamic models for hedging international portfolio risks. *European Journal of Operational Research*, forthcoming.