



## New Challenges in Mathematical Finance: From S(P)DEs to Machine Learning

Guest Editors:

**Dr. Luca Di Persio**

Department of Computer Science, College of Mathematics, University of Verona, Strada le Grazie 15, 37134 Verona, Italy

**Dr. Francesco Giuseppe Cordoni**

Department of Computer Science, University of Verona - Strada le Grazie, 15 37134 Verona, Italy

**Dr. Immacolata Oliva**

Department of Methods and Models for Economics, Territory and Finance, Sapienza University of Rome, Rome, Italy

Deadline for manuscript submissions:

**closed (15 March 2023)**

### Message from the Guest Editors

Financial markets are currently characterized by an increasing number of challenging tasks which outperform already-obtained results in terms, for example, of standard credit risk measures, interest rates structures analysis, financial scenario forecasting, and related sub-problems. In particular, the enormous mass of data, spanning from micro-economic to macro-economic frameworks, demands the development of a new stochastic-based holistic vision which can re-establish the right grip between mathematical theory and related applied tools as well as between quantitative tasks and their formally correct description/analysis/forecast. Therefore, this Special Issue will be devoted to collecting contributions aimed at finding a collective approach to the aforementioned challenges. It welcomes papers dealing with concrete financial problems from different perspectives. Contributions related to, for example, the theory of SPDEs, stochastic mean field games, neural networks solutions, and combinations of these will constitute the core of the present Special Issue.





an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Steven Haberman

Faculty of Actuarial Science and  
Insurance, Bayes Business  
School, City University of London,  
106 Bunhill Row, London EC1Y  
8TZ, UK

## Message from the Editor-in-Chief

*Risks* is published in Open Access format – research articles, reviews and other content are released on the internet immediately after acceptance. Specifically, *Risks* welcomes contributions that

- contribute with insight, outlook, understanding and overview, no matter how simple they are;
- show creativity in pedagogical tricks and techniques;
- help the transfer of theoretical research to public and private application;
- show responsibility for societal impact.

The scientific community and the general public have unlimited free access to the content as soon as it is published.

## Author Benefits

**Open Access:** free for readers, with **article processing charges (APC)** paid by authors or their institutions.

**High visibility:** indexed within **Scopus**, **ESCI (Web of Science)**, **EconLit**, **EconBiz**, **RePEc**, and **other databases**.

**Journal Rank:** CiteScore - Q1 (*Economics, Econometrics and Finance (miscellaneous)*)

## Contact Us

---

*Risks* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/risks](http://mdpi.com/journal/risks)  
[risks@mdpi.com](mailto:risks@mdpi.com)  
[X@Risks\\_MDPI](https://twitter.com/Risks_MDPI)