



## Stochastic Modelling with Applications in Finance and Insurance

Guest Editors:

**Prof. Dr. Jan Dhaene**

AFI Department, KU Leuven, 3000  
Leuven, Belgium

**Prof. Dr. Michèle Vanmaele**

Department of Applied  
Mathematics, Computer Science  
and Statistics, Ghent University,  
Krijgslaan 281 S9 (WE02), B-9000  
Gent, Belgium

Deadline for manuscript  
submissions:

**closed (31 May 2021)**

### Message from the Guest Editors

Dear Colleagues,

Stochastic models have been questioned under the upsurge of machine learning techniques applied to these fields. Nonetheless, stochastic modelling remains a powerful tool to describe a broad range of phenomena in the area of mathematical finance and of insurance separately, as well as in their intersection. The interaction between the theoretical developments on one hand, and numerical computation techniques on the other hand, has led to important results and applications in the above-mentioned fields, including portfolio optimization, risk management and solvency related research questions.

This Special Issue aims at highlighting high-quality papers under the form of an original research article, a state-of-the-art review or an expository dealing with the recent advances on the topic of 'Stochastic Modelling with Applications in Finance and Insurance'. Both theoretical and practice-related developments in the area of modelling in quantitative finance and insurance as well as in the interplay between these fields are welcome. Applications involve pricing, hedging, reserving, valuation and more generally, risk measurement and management.





## Editor-in-Chief

### **Prof. Dr. Francisco Chiclana**

School of Computer Science and  
Informatics, De Montfort  
University, The Gateway,  
Leicester LE1 9BH, UK

## Message from the Editor-in-Chief

The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

## Author Benefits

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

**High Visibility:** indexed within Scopus, SCIE (Web of Science), RePEc, and other databases.

**Journal Rank:** JCR - Q1 (*Mathematics*) / CiteScore - Q1 (*General Mathematics*)

## Contact Us

---

*Mathematics* 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/mathematics](http://mdpi.com/journal/mathematics)  
[mathematics@mdpi.com](mailto:mathematics@mdpi.com)  
[X@MathematicsMDPI](https://twitter.com/MathematicsMDPI)