

Special Issue

Stochastic Modelling in Financial Mathematics, 2nd Edition

Message from the Guest Editor

Financial mathematics (also known as mathematical finance and quantitative finance) is a field of applied mathematics, concerned with the mathematical and stochastic modelling of financial markets. In financial mathematics, modelling entails the development of sophisticated mathematical and stochastic models, and one may take, for example, the share price as a given and attempt to use stochastic calculus to obtain the corresponding value of derivatives of the stock. Thus, many problems, such as derivative pricing, portfolio optimization, risk modelling, etc., are generally stochastic in nature, and, hence, such models require complex stochastic analyses. This current Special Issue is exactly devoted to modern trends in financial mathematics associated with stochastic modelling, including modelling of big data. Topics from many areas, such as high-frequency and algorithmic trading (limit order books), energy finance, regime switching, and stochastic volatility modelling, among others, have shown to have deep applicable values, which are useful for both academics and practitioners.

Guest Editor

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Deadline for manuscript submissions

closed (30 November 2025)



Risks

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Impact Factor 1.5
CiteScore 5.0



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Risks is published in an open access format; research articles, reviews, and other content are released on the internet immediately after acceptance. Specifically, *Risks* welcomes submissions that (a) contribute with insight, outlook, understanding, and overview; (b) show creativity in terms of pedagogical methods and techniques; (c) help the transfer of theoretical and applied research into applications in the public and private domains; and (d) show responsibility for the impact on society. The scientific and the general public have unlimited free access to the content as soon as it is published.

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