

Special Issue

Stochastic Modelling in Financial Mathematics

Message from the Guest Editor

Financial mathematics (also known as mathematical finance and quantitative finance) is a field of applied mathematics, concerned with 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, are shown to have deep applicable values which are useful for both academics and practitioners.

Guest Editor

Prof. Dr. Anatoliy Swishchuk

Department of Mathematics and Statistics, University of Calgary,
Calgary, AB T2N 1N4, Canada

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Risks
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
risks@mdpi.com

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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.

Editor-in-Chief

Prof. Dr. Steven Haberman

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

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