



Stochastic Analysis and Applications in Financial Mathematics

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Message from the Guest Editors

Dear Colleagues,

The origin of the application of rigorous mathematical and stochastic methods for asset pricing can be traced back to Louis Bachelier's 1900 doctoral thesis *Théorie de la spéculation*. From the early 1950s, economists, including Paul Samuelson, started to model asset prices using geometric Brownian motion.

In addition to stochastic analysis in asset pricing, option and derivatives pricing, and interest rate modelling, techniques around stochastic optimal control, forward-backward stochastic differential equations (FBSDEs), and stochastic filtering, among others, have gained greater traction in addressing financial problems, such as portfolio management and optimization, risk management and measurement, algorithmic trading and trading strategies, among many other areas of application.

In this Special Issue, we call for original papers that further extend the frontiers of the existing rich literature, as well as shorter insightful review and survey papers on the applications of stochastic analysis in financial mathematics.





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Message from the Editor-in-Chief

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