

Special Issue

Probability Statistics and Quantitative Finance

Message from the Guest Editor

This Special Issue explores the critical role of probability and statistics in advancing quantitative finance. As financial markets grow increasingly complex, the application of probabilistic models and statistical methods has become essential for understanding market dynamics, managing risks, and optimizing investment strategies. This Special Issue brings together cutting-edge research and practical insights on topics such as asset pricing, risk management, portfolio optimization, high-frequency trading, and market microstructure analysis. It also highlights the integration of machine learning and big data analytics in financial decision-making. By showcasing innovative approaches and real-world applications, this Special Issue aims to bridge the gap between theoretical advancements and practical challenges in quantitative finance. Researchers and practitioners are invited to submit their work, fostering a deeper understanding of how probability and statistics can drive more accurate predictions, efficient strategies, and robust financial systems.

Guest Editor

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About the Journal

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.

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