

## Special Issue

# Blockchain Finance: Stochastic Modeling, Market Microstructure, and Quantitative Risk Control

### Message from the Guest Editor

Blockchain technology is reshaping finance through decentralization, transparent ledgers, and algorithmic trust. While it improves transparency and efficiency, it also introduces new price dynamics, liquidity segmentation, and sources of market fragility. The growth of decentralized finance and token-based ecosystems is transforming intermediation and market design, raising quantitative questions about systemic risk, including measurement, monitoring, and mitigation. This Special Issue invites studies on stochastic modeling, quantitative risk analysis, and market microstructure in blockchain-based financial systems. We welcome theoretical, empirical, and simulation-based research using stochastic processes, optimization, and computational finance to study the functioning, risks, and governance of blockchain markets. Papers combining blockchain analytics with financial economics, market microstructure, computational finance, or agent-based modeling are especially encouraged. By connecting economics, finance, and computer science, this Special Issue seeks to advance understanding of efficiency, stability, and resilience in digital markets.

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### Guest Editor

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### Deadline for manuscript submissions

31 July 2026



## Mathematics

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### 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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### Editor-in-Chief

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