

Special Issue

Stochastic Simulation: Theory and Applications

Message from the Guest Editors

In this Special Issue, we invite manuscripts dealing with the theory and applications of stochastic simulation. Applications and results for both transient and steady-state simulations will be considered, and methodologies that assess the accuracy of the corresponding point estimators are especially welcome. Topics of interest include, but not limited to, the following:

- Simulation-Based Optimization;
- Data Science for Simulation;
- Digital Twins and Industry 4.0;
- Markov Chain Monte Carlo Theory and Applications;
- Model Uncertainty and Robust Simulation;
- Simulation Input Analysis;
- Simulation Output Analysis;
- Computer Simulation of industrial and business processes;
- Simulation Applications: supervised learning in all areas, environmental sciences, climate sciences, biomedical sciences, chemical sciences and chemometrics, econometrics and finance, engineering design, agronomy and forestry sciences, energy, sustainable development, mining sciences, social web, information and communications technology, security, biometry, internet of things, natural disaster modelling.

Guest Editors

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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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Author Benefits

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Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 18.4 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).