Special Issue

Advances in Analysis and Application of Mathematical Optimization Algorithms

Message from the Guest Editors

In mathematics, computer science and operations research, mathematical optimization (or mathematical programming) refers to a collection of methods and techniques used for solving an optimization problem such as minimizing or maximizing an objective function. This Special Issue will accept original research and review articles on novel mathematical optimization techniques and their applications. We also welcome analysis and design of optimization test problems, as well as performance evaluation indicators.

Potential topics include but are not limited to the following:
- Theoretical analyses of optimization algorithms
- Novel techniques and their applications
- Thorough analysis and comparison of existing optimization algorithms
- Analysis and design of optimization test problems and performance evaluation indicators
- Optimization methods and techniques in machine learning
- Application mathematical optimization in big data analytics
- Optimization of machine learning and deep learning models
- Robust optimization algorithms and their applications
- Optimization techniques for IoT Applications
- Single and multi- objective optimization algorithms.

Guest Editors

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Deadline for manuscript submissions

closed (29 February 2024)

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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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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).

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