

Special Issue

Mathematical Optimization and Computational Mechanics

Message from the Guest Editors

Mathematical optimization and computational mechanics are at the heart of advancing engineering applications, from structural stability to material science and geotechnical engineering. This Special Issue aims to bring together a collection of high-quality articles that explore the innovative intersection of optimization techniques and computational mechanics, focusing on the mathematical modeling of complex mechanical systems. The proposed topics will highlight research contributions that address the optimization challenges faced in various fields. This Special Issue will feature articles of the highest caliber related to the following topics:

- Mathematical models in optimization and computational mechanics.
- Numerical methods and algorithms for mechanical systems.
- Optimization techniques for structural mechanics and stability analysis.
- Reliability and risk analysis in mechanical and geotechnical systems.
- Machine learning methods in optimization and mechanics.
- Advanced computational tools for material modeling and design.

We invite you to contribute to this dynamic collection of research and look forward to your valuable contributions.

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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Journal Rank:

JCR - Q1 (Mathematics) / CiteScore - Q1 (General Mathematics)

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).