

Special Issue

Numerical Analysis and Simulation in Computational Mechanics

Message from the Guest Editor

We are pleased to invite you to contribute to this Special Issue, entitled “Numerical Analysis and Simulation in Computational Mechanics”, to be published in the journal *Mathematics*. This Special Issue aims to present recent advances in mathematical modeling, numerical analysis, and computational simulation methods relevant to subsurface mechanics, with a clear focus on their mathematical foundations and consistency with the scope of *Mathematics*. This Special Issue seeks to bring together contributions that advance numerical methodologies for coupled and multi-scale problems while maintaining rigorous mathematical analysis. The goal is to form a focused collection of high-quality articles addressing key challenges in this research area. For this Special Issue, original research articles and review papers are welcome to be submitted. Suggested themes include, but are not limited to, the following:

- Numerical analysis of thermo-hydro-mechanical coupled systems;
- Rock damage, fracture mechanics, and failure modeling;
- Numerical methods for hydraulic fracturing and enhanced geothermal systems;
- Digital rock analysis and multi-scale simulation.

We look forward to receiving your contributions.

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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Prof. Dr. Francisco Chiclana

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High Visibility:

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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).