

# Special Issue

## Advanced Numerical Modelling and Simulation Techniques in Computational Mechanics

### Message from the Guest Editor

We are pleased to announce this Special Issue of the journal *Mathematics* entitled “Advanced Numerical Modelling and Simulation Techniques in Computational Mechanics”. This initiative focuses on advances in algorithmic research and practical applications of computational mechanics techniques and methods, which have been attracting growing interest in recent years due to their effectiveness in solving technical problems. We welcome high-quality submissions that contribute to the advancement of numerical modelling and simulation techniques, showcasing their impact on solving real-world engineering problems. Potential broad topics for submission include, but are not limited to, the following:

- Isogeometric Analysis (IGA).
- Phase-Field Modelling.
- Deep Learning: including Physics-Informed Neural Networks (PINNs) for integrating deep learning with physical models.
- Boundary Element Method (BEM).
- Finite Cell Method (FCM).
- Material Point Method (MPM).
- Mesh-Free Methods.
- Virtual Element Method (VEM).
- Variational Multiscale Method (VMS).

### Guest Editor

Dr. Yousef Ghaffari Motlagh

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### Deadline for manuscript submissions

31 December 2025



## Mathematics

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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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### Editor-in-Chief

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### Author Benefits

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), RePEc, and other databases.

#### 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).