Special Issue

Numerical and Qualitative Methods in Solid Mechanics

Message from the Guest Editor

Numerical and qualitative methods are essential parts of solid mechanics. These methods are necessary for understanding the general features of well-established and new constitutive equations, as well as for obtaining results ready for engineering applications. However, the results derived by qualitative methods can be useful for developing finite element methods such as the generalized finite element method. Special numerical methods are important for design problems in the mechanics of structures and processes. This Special Issue focuses on the following:

- Asymptotic methods in solid mechanics;
- Perturbation techniques in solid mechanics;
- Constitutive modeling for engineering materials;
- Design of structures using continuum mechanics methods;
- Design of processes using continuum mechanics methods;
- Development of numerical techniques for solving boundary value problems in solid mechanics.

Manuscripts reporting results using commercial software packages are not encouraged.

Guest Editor

Dr. Elena A. Lyamina

Ishlinsky Institute for Problems in Mechanics of the Russian Academy of Sciences, 119526 Moscow, Russia

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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.

Editor-in-Chief

Prof. Dr. Francisco Chiclana
School of Computer Science and Informatics, De Montfort University, The Gateway, Leicester LE1 9BH, UK

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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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