

# Special Issue

## Differential Equations of Mathematical Physics and Related Problems of Mechanics

### Message from the Guest Editors

The main topics of this Special Issue are:

- Mathematical Physics and PDE
- Applied Mathematics

Numerical methods of ODEs and PDEs, nonlinear problems, bifurcations, stability, chaos and fractals, fractional calculus;

- Related Problems of Analysis and Continuum Mechanics

Stochastic models and probabilistic methods including random matrices and stochastic PDE; variational formulations of gradient elasticity theories, micropolar and micromorphic models of solids and fluids; constructive methods for representing solutions in the high-order theories of solids; general representations of solutions; nonlocal effects (interactions) and smooth solutions for bodies with nonsmooth geometry; identification of materials parameters of generalized continuum theories; size-dependent models of thin structures and composite materials; nonclassical dynamic effects in generalized media; gradient theories in multiphysics, including thermodynamic, thermodiffusion, electroelasticity processes in the nano- and microfields of mechanical engineering and related applied problems.

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### Guest Editors

Prof. Dr. Hovik Matevosian

Prof. Dr. Maria Korovina

Prof. Dr. Sergey Lurie

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### Deadline for manuscript submissions

closed (31 October 2023)



## 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

Prof. Dr. Francisco Chiclana  
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#### High Visibility:

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#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 17.1 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the first half of 2024).