

Special Issue

Nonlinear Vibration Theory and Mechanical Dynamics, 2nd Edition

Message from the Guest Editor

The study of nonlinear dynamical systems remains a vital area of research, offering critical insights into the behavior of complex systems across a range of disciplines. This Special Issue encourages the submission of innovative research papers that address the challenges and advancements in modeling, analysis, and computation related to nonlinear systems.

Contributions emphasizing interdisciplinary approaches and highlighting emerging directions for future studies are particularly sought. We welcome original research papers and comprehensive reviews in areas including, but not limited to, the following:

- Nonlinear oscillators;
- The dynamics of mechanisms and machines;
- Systems with variable mass;
- Nonlinear phenomena in mechanical systems;
- Analytical methods for solving nonlinear systems;
- Computational techniques for nonlinear dynamical systems;
- Applications across physics, applied mathematics, mechanics, engineering, and life sciences.

This Special Issue aims to foster collaborations among researchers across various disciplines, contributing to a deeper understanding of nonlinear dynamics and promoting innovation in theory and practice.

Guest Editor

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Deadline for manuscript submissions

closed (31 July 2025)



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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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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).