

# Special Issue

## New Advances in Vibration Control and Nonlinear Dynamics

### Message from the Guest Editors

This Special Issue on “New Advances in Vibration Control and Nonlinear Dynamics” will gather relevant research contributions about the most significant and emerging topics in the field of vibration control and nonlinear structural dynamics. Relevant topics include the following:

- Numerical methods for nonlinear systems: harmonic balance, multiple time/space scales, iterative solvers, nonlinear modeling;
- Experimental nonlinear dynamics: random and harmonic excitations, shaker–structure interaction, benchmark experiments;
- Model validation and system identification: data-driven model updates, experimental validation of nonlinear models;
- Nonlinear phenomena in structures and structural monitoring: bridges, cable transportation systems, overhead contact lines, turbines, vehicles, etc.;
- Control of vibrations and noise;
- Vibration control of nonlinear structures: nonlinear control theory, stability, linearization.

---

### Guest Editors

Dr. Guoying Zhao

School of Physics and Astronomy, Sun Yat-Sen University, Guangzhou 519082, China

Dr. Ghislain Raze

Aerospace and Mechanical Engineering Department, University of Liège, 4000 Liège, Belgium

---

### Deadline for manuscript submissions

closed (31 August 2024)



## Mathematics

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.3  
CiteScore 4.0



[mdpi.com/si/141785](https://mdpi.com/si/141785)

*Mathematics*

MDPI, Grosspeteranlage 5

4052 Basel, Switzerland

Tel: +41 61 683 77 34

[mathematics@mdpi.com](mailto:mathematics@mdpi.com)

[mdpi.com/journal/  
mathematics](https://mdpi.com/journal/mathematics)





# Mathematics

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.3  
CiteScore 4.0



[mdpi.com/journal/  
mathematics](https://mdpi.com/journal/mathematics)



## 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

---

### 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 18.3 days after submission; acceptance to publication is undertaken in 1.9 days (median values for papers published in this journal in the second half of 2024).