

# Special Issue

## Mathematical Modeling and Simulation of Oscillatory Phenomena, 2nd Edition

### Message from the Guest Editors

Oscillations remain a ubiquitous feature across diverse disciplines, including physiology, ecosystem dynamics, biochemistry, mechanics, and population dynamics. The prevalence of oscillations underscores the need for a robust theoretical framework, which continues to evolve under the banner of oscillation theory. This Special Issue is dedicated to the modeling and simulation of nonlinear dynamical systems, where oscillation serves as a fundamental behavior. We invite contributions from researchers who are engaged in oscillation theory or those applying existing tools and methods to investigating oscillatory phenomena within real-world dynamical systems. Of particular interest are studies addressing time-delay systems, where the delay is recognized as a significant contributor to the oscillations in dynamical systems. We eagerly anticipate submissions furthering our understanding of oscillatory properties and their relationship with various physical processes. Join us in exploring the intricate dynamics of oscillatory systems and their applications across diverse scientific disciplines. We eagerly await your contributions.

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### Guest Editors

Prof. Dr. Tongxing Li

School of Control Science and Engineering, Shandong University, Jinan 250061, China

Dr. Irena Jadlovská

Department of Mathematics and Theoretical Informatics, Faculty of Electrical Engineering and Informatics, Technical University of Košice, Letná 9, 042 00 Košice, Slovakia

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### Deadline for manuscript submissions

28 February 2025



## Mathematics

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4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
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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  
School of Computer Science and Informatics, De Montfort University,  
The Gateway, Leicester LE1 9BH, UK

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