

Special Issue

Modeling, Control and Optimization of Biological Systems

Message from the Guest Editor

Biological systems, from cellular pathways to ecosystems, exhibit intricate dynamics shaped by nonlinear interactions. Advances in biological systems, computational tools and synthetic biology have created opportunities to model, control and optimize these systems for transformative applications in healthcare, biomanufacturing and environmental sustainability. However, challenges persist in balancing model accuracy, scalability and real-world applicability. This proposal aims to achieve specific goals such as maintaining homeostasis, improving bioprocesses or developing novel therapeutic approaches. By integrating modeling, control and optimization techniques, researchers can gain a deeper understanding of biological systems and potentially develop more effective strategies for their manipulation and application.

Guest Editor

Prof. Dr. Junyuan Yang

Complex Systems Research Center, Shanxi University, Taiyuan 030006, China

Deadline for manuscript submissions

20 September 2026



Mathematics

an Open Access Journal
by MDPI

Impact Factor 2.2
CiteScore 4.6



mdpi.com/si/233458

Mathematics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
mathematics@mdpi.com

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





Mathematics

an Open Access Journal
by MDPI

Impact Factor 2.2
CiteScore 4.6



[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 17.3 days after submission; acceptance to publication is undertaken in 2.8 days (median values for papers published in this journal in the second half of 2025).