Special Issue

Advanced Mathematical Methods for Networked System Control and Synchronization

Message from the Guest Editors

This Special Issue, titled "Advanced Mathematical Methods for Networked System Control and Synchronization", will investigate the latest mathematical techniques aimed at enhancing the control and synchronization of complex, interconnected systems. It covers a broad range of topics, ranging from stability and controllability in dynamic networks to synchronization across various systems, including cyber–physical and biological networks. Practical applications will also be explored in areas such as power grids, autonomous vehicles, communication networks, robotic swarms, sensor networks, and distributed computing systems, aiming to solve real-world challenges related to robustness, adaptability, and scalability. Contributions focus on mathematical tools like differential equations, Lyapunov functions, consensus algorithms, optimization algorithms, graph theory, game theory, and nonlinear control theory to ensure the efficient, reliable, and synchronized operation of interconnected systems across diverse domains.

Guest Editors

Prof. Dr. Ziqian Liu

Dr. Yanli Huang

Prof. Dr. Jinliang Wang

Deadline for manuscript submissions

10 August 2025

Mathematics

an Open Access Journal by MDPI

Impact Factor 2.2
CiteScore 4.6

mdpi.com/si/220132

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

mdpi.com/journal/mathematics

Mathematics

an Open Access Journal by MDPI

Impact Factor 2.2
CiteScore 4.6

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 18.4 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).

MDPI