Special Issue

Classical and Intelligent Approaches for the Optimization, Control, and Modeling of Dynamic Systems

Message from the Guest Editor

We are pleased to invite you to contribute to this Special Issue focusing on the mathematical foundations, classical methodologies, and intelligent (AI/ML-based) approaches used in the optimization, control, and modeling of dynamic systems.

Dynamic systems—spanning mechanical, electrical, biological, and socio technical domains—require rigorous mathematical tools to characterize their behavior, stability, estimation, and optimality. Classical approaches such as analytical modeling, optimal control theory, stability analysis, and numerical optimization continue to form the backbone of mathematical engineering. In parallel, intelligent methods derived from machine learning, data-driven modeling, and hybrid mathematical–computational strategies have emerged as powerful tools for approximation, prediction, control design, and optimization.

This Special Issue seeks high-quality contributions that advance mathematical theory, computational techniques, or hybrid frameworks combining classical and intelligent methods for dynamic systems.

We look forward to receiving your valuable contributions.

Guest Editor

Dr. Omar Rodríguez-Abreo

Facultad de Ingeniería, Universidad Autónoma de Querétaro, Santiago de Querétaro 76010, Mexico

Deadline for manuscript submissions

20 September 2026

Mathematics

an Open Access Journal by MDPI

Impact Factor 2.2
CiteScore 4.6

mdpi.com/si/262435

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