Special Issue

Optimization, Control and Modeling in Robotics and Vehicle Dynamics

Message from the Guest Editor

The growing complexity of robotic systems and autonomous vehicles has made mathematical modeling and automatic control significant areas of scientific and technological research. These disciplines intersect to form a critical foundation for addressing optimization, design, operation, and decision-making challenges in dynamic, uncertain, and computationally demanding environments.

This Special Issue invites contributions that advance mathematical modeling methodologies and explore optimal, robust, adaptive, and other control strategies. We particularly welcome studies that integrate rigorous theoretical analysis with design, development, and experimental implementation—whether in prototypes or technological applications—demonstrating the central role of mathematics in unifying predictive models, control algorithms, and real-time decision architectures.

Through this Special Issue, we aim to highlight the importance of mathematical rigor in developing robotics and autonomous vehicle technologies and to promote interdisciplinary dialogue among researchers and practitioners. This collaboration will continue to advance robotics and vehicular autonomy in scientific and industrial contexts.

Guest Editor

Dr. Ricardo López-Gutiérrez

México-Consejo Nacional de Humanidades, Ciencias y Tegnologías (IXM-CONAHCYT), Av. de los Insurgentes Sur #1582, Mexico City 03940, Mexico

Deadline for manuscript submissions

31 July 2026

Mathematics

an Open Access Journal by MDPI

Impact Factor 2.2
CiteScore 4.6

mdpi.com/si/257451

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

MDPI

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).