

# Special Issue

## Advances in Proportional-Integral-Derivative-Based Control of Dynamic Systems: Theory and Applications

### Message from the Guest Editors

Proportional-integral-derivative (PID) controllers are among the most commonly used controllers in industry. They play a crucial role in maintaining control efficiency and stability in various industrial processes. Some of the key benefits of PID controllers are their versatility, adaptability, ease of implementation, and robust performance. This makes them indispensable tools for maintaining control and stability in various industrial processes. Although the first industrial automatic and hyperreset controllers date back to the 1940s, the development of controller tuning methods and the modification of control algorithms and structures has not stood still. On the contrary, the number of studies is constantly increasing. The Special Issue deals with new tuning methods for constrained PID controllers and other control algorithms with comparable computational complexity.

### Guest Editors

Dr. Damir Vrančić

Department of Systems and Control, J. Stefan Institute, SI-1000 Ljubljana, Slovenia

Dr. Paulo Moura Oliveira

INESC-TEC, University of Trás-os-Montes e Alto Douro, 5001-911 Vila Real, Portugal

### Deadline for manuscript submissions

31 August 2025



# Mathematics

an Open Access Journal  
by MDPI

Impact Factor 2.2  
CiteScore 4.6



[mdpi.com/si/204199](https://mdpi.com/si/204199)

*Mathematics*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[mathematics@mdpi.com](mailto: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 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).