

# Special Issue

## Emerging Topics in Machine Learning, Image Processing and Pattern Recognition for AI-Related Applications

### Message from the Guest Editors

Recent advances in the fields of machine learning, image processing and pattern recognition have sparked a rapid revolution in the field of artificial intelligence (AI). The purpose of this Special Issue is to collate the latest methodologies, models, algorithms and findings, as well as to discuss the current challenges of machine learning, image processing and pattern recognition solutions for a broad range of AI-related applications. Topics include but are not limited to:

- Deep learning;
- Interpretable machine learning algorithms;
- Statistical learning theory for data mining;
- Semi-supervised, weakly supervised and unsupervised learning systems;
- Multi-modal data analysis;
- Optimization of sustainable computational intelligence;
- Innovative methodology related to image processing and computer vision;
- Mathematic solutions for pattern recognition;
- Real-time pattern recognition applications;
- Secure AI.

### Guest Editors

Prof. Dr. Yiu-ming Cheung

Prof. Dr. Yuping Wang

Prof. Dr. Xin Liu

### Deadline for manuscript submissions

closed (31 December 2023)



## Mathematics

an Open Access Journal  
by MDPI

Impact Factor 2.2  
CiteScore 4.6



[mdpi.com/si/122199](https://mdpi.com/si/122199)

*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 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).