

## Special Issue

# Numerical Analysis with Applications in Machine Learning

### Message from the Guest Editor

The collection of large amounts of data produced by an enormous variety of users has been a fact for many years now. Therefore, there is a tremendous need to study, analyze, and process these data in order to clear out the possible noise and derive the substantial information. The use of existing methods and the tuning of their parameters still gives very interesting results for the treated problems. Wishing to go further in the solution of existing or new more difficult problems, scientists have to go back to the roots of the mathematics used in machine learning, in order to research and create new, stable, and accurate methods. Through this Special Issue, we invite our colleagues to submit articles that rely on numerical analysis methods to address problems in the field of machine learning, presenting both theoretical and experimental results. The fields of interest originate from mathematics and computer science, including (but not limited to) numerical linear algebra, Euclidean, pseudo-Euclidean and metric spaces, theory of matrices, theory of approximation and optimization, machine learning, computer vision, classification, clustering, and pattern recognition.

---

### Guest Editor

Prof. Dr. Panagiota Tsompanopoulou  
Department of Electrical and Computer Engineering, University of  
Thessaly, 38221 Volos, Greece

---

### Deadline for manuscript submissions

closed (20 January 2023)



## Mathematics

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.2  
CiteScore 4.6



[mdpi.com/si/62330](https://mdpi.com/si/62330)

*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).