

# Special Issue

## Data Mining and Machine Learning in the Era of Big Knowledge and Large Models

### Message from the Guest Editors

In recent years, the fields of data mining and machine learning have undergone a transformative shift with the advent of big data and the development of increasingly complex models. This Special Issue aims to explore the latest advancements, challenges, and applications in data mining and machine learning within the context of big knowledge and large models. We invite researchers to contribute original research articles, reviews, and short communications on topics related to data mining and machine learning, including but not limited to the following: Scalable algorithms for big data analysis; Deep learning architectures and techniques; Transfer learning and domain adaptation in large-scale models; Federated learning and distributed machine learning systems; Explainable AI and interpretable machine learning models; Privacy-preserving data mining and machine learning; Secure and trustworthy machine learning; Reinforcement learning in complex environments; Meta-learning and automated machine learning; Optimization techniques for large-scale models; Applications of data mining and machine learning in real-world scenarios.

### Guest Editors

Prof. Dr. Jing Zhang

School of Cyber Science and Engineering, Southeast University,  
Nanjing, China

Dr. Chenyang Bu

Ministry of Education Key Laboratory of Knowledge Engineering with  
Big Data, School of Computer Science and Information Engineering,  
Hefei University of Technology, Hefei 230009, China

### Deadline for manuscript submissions

closed (31 July 2025)



## Mathematics

an Open Access Journal  
by MDPI

Impact Factor 2.2  
CiteScore 4.6



[mdpi.com/si/196132](https://mdpi.com/si/196132)

*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).