

# Special Issue

## Discrete Mathematics, Graph Theory and Applications

### Message from the Guest Editors

By the middle of the 20th century, a new kind of mathematics, quite unlike the continuous mathematics of calculus, became prominent, called discrete mathematics. Discrete mathematics primarily became the study of the mathematical properties of sets, systems and structures having a countable collection of elements. The growing popularity of and interest in discrete mathematics was greatly influenced by its applications to areas such as computer science, engineering, communication and transportation, as well as its emergence as a fascinating area of mathematics.... Graphs are discrete structures consisting of vertices and edges that connect these vertices. Problems in almost every conceivable discipline can be solved using graph models. One of the fascinating branches of graph theory that has attracted the attention of researchers all over the world is spectral graph theory. The theory of graphs is further extended to networks and systems, where the vertices can represent different entities in nature, society, and technology, and the links between them are modeled by edges.

### Guest Editors

Dr. Hilal Ahmad

Department of Mathematics, University of Kashmir, Hazaratbal, Srinagar 190006, India

Dr. Yilun Shang

Department of Computer and Information Sciences, Northumbria University, Newcastle-upon-Tyne, UK

### 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/168542](https://mdpi.com/si/168542)

*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).