

# Special Issue

## Advances in Combinatorics, Tropical Geometry and Geometry of Matroids

### Message from the Guest Editors

This Special Issue aims to bring together a diverse set of contributions that demonstrate the depth and breadth of these interconnected fields, while celebrating 25 years of tropical geometry. Both theoretical and applied perspectives are encouraged. Topics include, but are not limited to, the following:

- Matroid theory, geometry of matroids, and connections to topology and polyhedral geometry;
- Tropical geometry: intersection theory, moduli, invariants (e.g., CSM classes), and applications in algebraic geometry, number theory, and optimization;
- Computational and algorithmic algebraic geometry; symbolic and numeric methods supporting experimentation;
- Chern–Schwartz–MacPherson classes, characteristic cycles, and related invariants;
- Toric and Schubert geometry and interactions with representation theory;
- Combinatorics of polytopes, fans, and Coxeter/cluster structures;
- Enumerative problems in tropical and matroidal settings;
- Algebra and geometry over the “field with one element”;
- Applications to singularity theory, moduli problems, and related areas;
- Connections between tropical geometry, representation theory, and mathematical physics.

### Guest Editors

Dr. Lucía López de Medrano

Cuernavaca Unit of the Institute of Mathematics, National Autonomous University of Mexico, Cuernavaca 62210, Mexico

Dr. Manchun Leung

Department of Mathematics, Faculty of Science, National University of Singapore, Singapore 119077, Singapore

### Deadline for manuscript submissions

22 July 2026



## Mathematics

an Open Access Journal  
by MDPI

Impact Factor 2.2  
CiteScore 4.6



[mdpi.com/si/255303](https://mdpi.com/si/255303)

*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).