

# Special Issue

## Advances in Discrete Applied Mathematics and Graph Theory, 2nd Edition

### Message from the Guest Editors

Since its origins in the 18th century, graph theory has been a branch of mathematics that is both motivated by and applied to real world problems. Research in discrete mathematics increased in the latter half of the twentieth century mainly due to development of digital computers. On the other side, the advances in technology of digital computers enables extensive application of new ideas from discrete mathematics to real-world problems. This special issue intends to promote novel examples of application of graph theory and discrete mathematics, as well as purely theoretical works with foreseen impact to applications. The editors do not intend to narrow the scope of applications, and also encourage studies in standard areas of application that may be of particular interest recently, such as discrete models in epidemiology or advanced graph theoretical models used in drug design, both in view of the current pandemic. Contributions are welcome. The selection criteria will be based on the formal and technical soundness, and the relevance of the contribution.

### Guest Editors

Prof. Dr. Janez Žerovnik

1. Faculty of Mechanical Engineering, University of Ljubljana, 1000 Ljubljana, Slovenia

2. Institute of Mathematics, Physics, and Mechanics, 1000 Ljubljana, Slovenia

Dr. Darja Rupnik Poklutar

Faculty of Mechanical Engineering, University of Ljubljana, 1000 Ljubljana, Slovenia

### Deadline for manuscript submissions

closed (30 June 2023)



## Mathematics

an Open Access Journal  
by MDPI

Impact Factor 2.2  
CiteScore 4.6



[mdpi.com/si/118061](https://mdpi.com/si/118061)

*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).