

# Special Issue

## Algebraic Structures and Graph Theory, 2nd Edition

### Message from the Guest Editors

Due to the success of the previous Special Issue, we are pleased to announce a second edition of the Special Issue on Algebraic Structures and Graph Theory. Connections between algebraic structure and graph theories have been established in order to solve some problems in one theory with the help of the tools existing in the other one, emphasizing their remarkable properties and providing new methods for problem solving. One very well-known example is the contribution by Artur Cayley, who defined the concept of a group in 1854 (the composition table of the operation takes his name, i.e., the Cayley table), and in 1878, described the structure of a group using a Cayley graph. There are many ways to define an algebraic structure (as a group, ring, hypergroup, lattice, etc.), and they usually start with a graph. This Special Issue accepts original, high-quality contributions, where a connection between algebraic structures and graph theory is clearly presented. New theoretical aspects, as well as practical applications representing current research directions on this topic, are welcome. We also invite authors to submit review papers on the aforementioned topic.

---

### Guest Editors

Dr. Irina Cristea

Centre for Information Technologies and Applied Mathematics,  
University of Nova Gorica, 5000 Nova Gorica, Slovenia

Dr. Alessandro Linzi

Centre for Information Technologies and Applied Mathematics,  
University of Nova Gorica, 5000 Nova Gorica, Slovenia

---

### Deadline for manuscript submissions

closed (30 September 2024)



## Mathematics

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.2  
CiteScore 4.6



[mdpi.com/si/166777](https://mdpi.com/si/166777)

*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).