### **Special Issue**

### Graph Theory and Its Applications 2025

### Message from the Guest Editor

We would like to invite you to submit your recent research on graph theory, algorithmic graph theory, and their applications in other fields to this Special Issue, entitled "New Advance in Graph Theory and Its Applications". Graph theory has various applications in diverse fields, including computer science, social networks, biology, telecommunications, transportation, and operation research, and we especially encourage research papers broadening its reach. The scope of this Special Issue includes, but is not limited to, the following:

- Algorithmic graph theory (including the approximation algorithm and the fixed parameterised algorithm);
- Structural graph theory;
- Combinatorial optimisation and mathematical modelling;
- Computational applications of graph theory (including bioinformatics and computer search in graph theory);
- Graph mining and knowledge discovery;
- Machine learning algorithms inspired by graph theory concepts.

### Guest Editor

#### Dr. Arash Rafiey

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### Deadline for manuscript submissions

31 August 2025



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### 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

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