

# Special Issue

## Mathematics of Computer Networking in Real-World Applications

### Message from the Guest Editors

Mathematics is central to researching multi-agent cooperation, game, planning, hunting, and reinforcement learning. Current research focuses on high-dimensional data processing, response to unstable environments, game strategy optimization, distributed decision-making mechanisms, dynamic path planning, and efficient reinforcement learning algorithms. Mathematical theories and methods provide key tools for solving complex multi-agent problems. This topic welcomes original research and review articles on mathematical modeling in network computing and applications. The topics of interest include but are not limited to the following areas:

- Multi-agent cooperation
- Game theory
- Path planning
- Round up strategy
- Security of computer networking
- Abnormality detection in computer networking
- Reinforcement learning
- Mathematical optimization
- Mathematical modeling of future communication and networks
- Mathematical Modeling of the Integrated Network of Heaven, Earth, and Space
- Machine Learning in Communication and Networks
- Artificial Intelligence in Communication and Networks
- the Internet of Things in communication and networking
- blockchain in communication and networks.

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### Guest Editors

Prof. Dr. Kurban Ubul

Prof. Dr. Qijun Zhao

Dr. Hongbing Ma

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### Deadline for manuscript submissions

30 September 2025



## Mathematics

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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.

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### Editor-in-Chief

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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).