

Special Issue

Computational Methods for Network Optimization and Security

Message from the Guest Editors

This Special Issue of Mathematics will explore “Computational Methods for Network Optimization and Security” in depth, addressing the critical demands of increasingly complex, heterogeneous, and intelligent network environments. We invite original research and review papers that develop or apply advanced computational methods, mathematical modeling, and intelligent algorithms to enhance the performance, resilience, and trustworthiness of modern networks. The scope of this Special Issue spans network performance optimization, including but not limited to resource allocation, intelligent traffic routing, topological design, and dynamic load balancing, alongside computational approaches for securing networks across multiple layers, including AI-driven intrusion detection systems, the optimization of cryptographic protocols, and threat modeling based on graph theory. Covered topics range from innovative heuristic algorithms for large-scale network optimization to quantum-secure computational methods for security.

We look forward to receiving your contributions.

Guest Editors

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Dr. Yang Liu

Dr. Ziyi Jia

Deadline for manuscript submissions

21 August 2026



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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

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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).