# Special Issue

# Modeling and Data Analysis of Complex Networks

## Message from the Guest Editor

Complex networks are ubiquitous in the real world, with social networks, transportation systems, protein interactions, power grids, computer networks, and the world wide web being examples of such. With a long history of study, significant developments have positioned network science as a key research focus in multiple scientific fields. Research here drives advancements across diverse applications, including in public opinion analysis, cybersecurity, drug discovery, and intelligent transportation. This Special Issue, "Modeling and Data Analysis of Complex Networks", aims to showcase recent advances in modeling, analyzing, and applying complex network across scientific and engineering domains. We invite contributions that introduce novel methodologies, computational techniques, and real-world applications that enhance our understanding of complex networks. Topics of interest include, but are not limited to, the following:

- Network structure and property analysis;
- Higher-order interaction analysis;
- Graph representation learning;
- Network dynamics;
- Community detection;
- Anomaly detection in networks;
- Robustness and resilience;
- Real-world applications.

## Guest Editor

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## Deadline for manuscript submissions

31 October 2025

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# Mathematics

**MDPI**

# 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

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