

# Special Issue

## Theory and Application of Neural Networks and Complex Networks

### Message from the Guest Editors

The analysis of complex networks has focused the attention of researchers in recent years. The Complex Network Theory allows us to understand, model and try to solve a great diversity of real systems such as transport networks, urban networks, or social networks between others. Artificial neural networks are recognized as a powerful tool that can help identify intertwined and complex relationships in a large number of systems. This Special Issue aims to collect theories or applications that utilize Artificial Neural Networks or Complex network methods to address all types of challenges. The topics of interest include, but are not limited to:

- Artificial neural networks.
- Machine and deep learning models.
- Clustering and classification algorithms.
- Predictive models.
- Graph neural networks.
- Models of complex networks.
- Centrality measures.
- Multiplex networks.
- Algorithms for network analysis.
- Spatial networks.
- Dynamic networks.
- Complex networks and epidemics.
- Applications of neural networks and complex networks domains: transport, energy, IoT, smart cities, etc.

### Guest Editors

Prof. Dr. José F. Vicent

Prof. Dr. Leandro Tortosa

Dr. Manuel Curado

### Deadline for manuscript submissions

closed (15 October 2024)



## 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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#### 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).