Special Issue

Graph Learning Methods in Data Science with Applications

Message from the Guest Editors

Graphs offer a concise and elegant framework for encoding and managing an ever-growing body of relational knowledge across a variety of domains such as cheminformatics, bioinformatics, social networks analysis, traffic forecasting, digital health, and computational medicine. In recent years, graph learning methods have emerged as an essential technology in data science due to their ability to analyze this wealth of information; this has enabled the realization of accurate inference and decision-making by explicitly modeling the relationships among data objects during the learning process. This Special Issue aims to provide an overview of recent methodological advancements in graph learning for data science. The scope of this Special Issue includes, but is not limited to, the following topics:

- Graph neural networks;
- Graph representation learning;
- Bayesian methods for graphs;
- Reservoir computing for graphs;
- Kernels for graphs;
- Learning on dynamic and temporal graphs;
- Learning on multi-relational and heterogeneous graphs;
- Continual learning on graphs;
- Adversarial attacks on graphs;
- Graph generation.

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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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