Special Issue

Recent Advances in Graph Theory, Applications and Related Topics

Message from the Guest Editor

Graph theory is an important aspect of discrete mathematics, and is associated with extensive theoretical developments and a wide range of applications in science and technology. In recent decades, there have been significant advances in the structural and algorithmic aspects of graphs, providing to new insights into classical problems and emerging areas.   Connectivity plays a crucial role in the study of network robustness and fault tolerance, while visibility problems can be directly applied in sensor networks, robotics and computational geometry. The study of fuzzy graphs provides a powerful framework with which to model uncertainty in complex systems, enhancing their relevance in decision-making and data analysis. This Special Issue of *Mathematics* aims to provide an overview of recent advances in graph theory, focusing on connectivity, visibility, fuzzy graphs, coalition and domination problems.

Guest Editor

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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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