

Special Issue

New Perspectives of Graph Theory and Combinatorics

Message from the Guest Editor

Graph theory and combinatorics remain central to modern mathematics, offering a deep well of unsolved problems, rich structural theory, and surprising connections to fields as varied as computer science, statistical physics, and optimization. We especially encourage submissions in the following areas: domination theory, including total, connected, Roman, and semi-total variants, as well as zero forcing, positive semidefinite zero forcing, power domination, and their connections to linear algebra, propagation processes, and control theory; independence number and related extremal and probabilistic problems; degree sequence problems, including characterizations, realizability questions, and invariants such as the residue of a graph; automated approaches to conjecture generation, including algorithmic heuristics that mimic mathematical discovery; new bounds, characterizations, and structural insights in classical and modern graph parameters; and interdisciplinary work linking combinatorics with algebraic, geometric, or logical methods.

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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