

Special Issue

Algebraic Structures and Graph Theory

Message from the Guest Editors

Connections between algebraic structure theory and graph theory have been established in order to solve some open problems in one theory with the help of the tools existing in the other, to emphasize the remarkable properties of one theory with techniques involving the second, providing new methods for solving some problems. One very well-known example in this direction is the contribution of Artur Cayley, who defined the concept of a group in 1854 (the composition table of the operation on the group takes his name—i.e., the Cayley table) and described in 1878 the structure of a group by a special graph, called a Cayley graph. There are many ways to define an algebraic structure (as a group, ring, hypergroup, lattice, etc.), starting from a graph. This Special Issue accepts original and high-level contributions, where a connection between algebraic structures and graph theory is clearly presented. New theoretical aspects as well as practical applications representing current research directions on this topic are welcome. We also invite authors to submit high-quality review papers on the aforementioned topic.

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Deadline for manuscript submissions

closed (30 December 2022)



Mathematics

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Impact Factor 2.2
CiteScore 4.6



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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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