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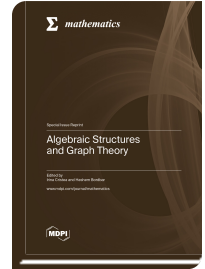
## **Algebraic Structures and Graph Theory**

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Edited by

Irina Cristea

Hashem Bordbar



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Interconnections between graph theory and algebraic structure theory have always led to innovative solutions to problems in both areas and new research topics in Mathematics and other scientific fields. This reprint aims to emphasize the new theoretical aspects and practical applications of these two research areas. It contains 18 articles selected for publication in the Special Issue "Algebraic Structures and Graph Theory," printed by the MDPI journal *Mathematics*.

The topics addressed by the manuscripts within this reprint cover different aspects principally related to transformation semigroups, *Gamma*-semigroups, differential graded algebras, *BL*-algebras, hypergroups and hyperfields, Cayley graphs, graph energy, crossing number, Laplacian spectral radius, hypergraphs, *t*-graphs, and ideal-based dot total graphs.



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