

Special Issue

Mathematical Optimization and Decision Making

Message from the Guest Editor

Dear Colleague, Mathematical optimization and decision making is a rapidly growing field of research that aims to develop novel mathematical models, algorithms, computational methods, as well as analysis frameworks to support decision-making processes prevalent in many application areas. On the mathematical optimization side, this topic covers a wide range of optimization techniques, both classical and heuristic, for linear, nonlinear, convex, stochastic, and combinatorial optimization problems. On the decision-making side, it covers areas such as decision trees, game theory, and multi-criteria decision analysis as well as various non-classical decision-making methods, including quantum-inspired methods. The main objective of this research field is to improve the efficiency, effectiveness, and quality of decision-making processes encountered in complex systems such as transportation, energy, manufacturing, healthcare, finance, and engineering.

Guest Editor

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Deadline for manuscript submissions

closed (31 March 2024)



Mathematics

an Open Access Journal
by MDPI

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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manuscripts are peer-reviewed and a first decision is provided to authors approximately 17.3 days after submission; acceptance to publication is undertaken in 2.8 days (median values for papers published in this journal in the second half of 2025).