Special Issue

Nonlinear Optimization: Algorithmic Advances and Innovative Applications

Message from the Guest Editor

Nonlinear optimization—including local and global and deterministic and stochastic optimization paradigms—is applicable to a broad range of business, engineering, and scientific decision-making situations. We invite contributions to this Special Issue that are related to the following topics:

- Deterministic model development and optimization applied to real-world problems.
- Stochastic simulation, stochastic programming, and simulation optimization applied to real-world problems.
- Algorithmic advances: novel heuristics and optimization algorithms and methodologies.
- Challenges and innovative solutions in the applications of nonlinear optimization.
- Interdisciplinary approaches: contributions that bridge disciplines—such as business analytics, management science, operations research, industrial engineering, and computer science—to address complex nonlinear optimization applications.
- Integration of emerging technologies into optimization algorithms to enhance their applicability and efficiency.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

Algorithms are the very core of Computer Science. The whole area has been considered from quite different perspectives, having led to the development of many sub-communities: Complexity theory (limitations), approximation or parameterized algorithms (types of problems), geometric algorithms (subject area), metaheuristics, algorithm engineering, medical imaging (applications), indicates the range of perspectives. Our journal welcomes submissions written from any of these perspectives, so that it may become a forum for exchange of ideas between the corresponding scientific subcommunities.

Editor-in-Chief

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