

Special Issue

Algorithms in Multi-Objective Optimization

Message from the Guest Editor

Many real-world optimization problems typically involve multiple (conflicting) objectives. In such problems, the aim is to find the set of non-dominated (Pareto-optimal) solutions, producing difference image vectors which are indifferent to each other when no other selection criterion is available. Some algorithms (e.g., Weighting method and ϵ -Constraints method), in the attempt to (fully or partially) accomplish this task, rely on iteratively solving proper single-objective mathematical formulations, derived from the original problem, each one returning a non-dominated solution, possibly requiring a large computing time when such a single-objective problem is NP-hard. The aim of this Special Issue is to collect original manuscripts dealing with algorithms in multi-objective optimization; in particular, two types of original manuscripts are welcome, i.e., Innovative Applications Papers, describing novel ways to solve real world multi-objective optimization problems, and Theory and Methodology Papers, presenting original research results contributing to the methodology of solving multi-objective optimization and to its theoretical foundations.

Guest Editor

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Deadline for manuscript submissions

closed (31 March 2022)



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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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