



Simulation-Based Optimization: Methods and Applications in Engineering Design

Guest Editors:

Dr. Andrea Serani

CNR-INM, National Research
Council-Institute of Marine
Engineering, Via di Vallerano 139,
00128 Rome, Italy

Dr. Riccardo Pellegrini

Institute of Marine Engineering,
Italian National Research
Council, 00128 Rome, Italy

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Message from the Guest Editors

In the engineering design context, the demand for efficient products is constantly increasing. These products must respond to an ever-increasing number of specific and complex requirements. Over the last thirty years, engineering design has radically transformed thanks to the exponential development of IT and digital resources.

The aim of this Special Issue is to collect state-of-the-art research on simulation-based optimization methods and their applications to complex engineering design problems. Relevant topics, methods, and applications are included in (but not limited to) the list below

- Single- and multiobjective optimization algorithms;
- Multidisciplinary optimization;
- Metamodeling and machine learning in SBDO;
- Multi-fidelity methods;
- Dimensionality reduction;
- Optimization under uncertainty;
- Design modification methods;
- Engineering design of aeronautical, aerospace, electrical, mechanical, naval applications.





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Editor-in-Chief

Prof. Dr. Frank Werner

Faculty of Mathematics, Otto-
von-Guericke-University, P.O. Box
4120, D-39016 Magdeburg,
Germany

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.

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Algorithms Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

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