



Numerical Analysis and Optimization: Methods and Applications

Guest Editors:

Dr. Kuo Tian

Department of Engineering
Mechanics, Dalian University of
Technology, Dalian 116024,
China

Dr. Weizhu Yang

Department of Engineering
Mechanics, Northwestern
Polytechnical University, Xi'an
710072, China

Dr. Shiyao Lin

Department of Aerospace
Engineering, University of
Michigan, Ann Arbor, MI 48109,
USA

Message from the Guest Editors

The scope of this Special Issue ranges from mathematical foundations of the numerical optimization to algorithm and software development, and from benchmark examples to case studies of practical applications in a wide range of industries including aerospace, civil, automotive, architecture, mechanical, and electrical engineering. Articles that focus on developing advanced algorithms for topology optimization, shape optimization, surrogate-based optimization, data-driven optimization, reliability optimization, and multidisciplinary optimization (solid, fluid, thermal, electric and electronics, electromagnetics) are encouraged. Particularly, deep research on applications of numerical simulation and optimization in composite structure design, nanotechnology, additive manufacturing, digital twins, AI, cloud computing, electric and electronics systems, biomechanics, and hydrogen storage technology is also welcomed.

Deadline for manuscript
submissions:

closed (31 August 2023)





Editor-in-Chief

Prof. Dr. Francisco Chiclana

School of Computer Science and
Informatics, De Montfort
University, The Gateway,
Leicester LE1 9BH, UK

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), RePEc, and other databases.

Journal Rank: JCR - Q1 (*Mathematics*) / CiteScore - Q1 (*General Mathematics*)

Contact Us

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

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/mathematics
mathematics@mdpi.com
[X@MathematicsMDPI](https://twitter.com/MathematicsMDPI)