Special Issue

Numerical Analysis and Optimization: Methods and Applications

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.

Guest Editors

Dr. Kuo Tian

Dr. Weizhu Yang

Dr. Shiyao Lin

Deadline for manuscript submissions

closed (31 August 2023)

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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.

Editor-in-Chief

Prof. Dr. Francisco Chiclana
School of Computer Science and Informatics, De Montfort University, The Gateway, Leicester LE1 9BH, UK

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