

Special Issue

Numerical Simulation and Analysis in Applied Mechanics and Engineering

Message from the Guest Editors

Based on numerical methods such as finite difference, finite volume, finite element, boundary element, and meshless methods, numerical simulations for various problems in the fields of applied mechanics and engineering have rapidly developed in the recent decades. Numerical simulation and combined machine learning method will play an increasingly important role for studying the problems in applied mechanics and engineering. This Special Issue intends to collect original research and review articles that focus on the most recent developments in numerical simulation and analysis, especially for complicated problems.

Moreover, manuscripts on the theories of numerical simulation and analysis for applied mechanics, engineering, or science problems are welcome. We are particularly interested in manuscripts that report on the relevance of numerical simulation and machine learning theory and those on the application of machine learning theory in the field of civil engineering, petroleum engineering, water resources, geotechnical engineering, and other emerging fields. We are also concerned with development of the corresponding aspects based on machine learning.

Guest Editors

Prof. Dr. Kai Zhang

College of Civil Engineering, Qingdao Technological University,
Qingdao 266520, China

Dr. Piyang Liu

College of Civil Engineering, Qingdao Technological University,
Qingdao 266520, China

Deadline for manuscript submissions

closed (31 December 2024)



Mathematics

an Open Access Journal
by MDPI

Impact Factor 2.2
CiteScore 4.6



mdpi.com/si/131204

Mathematics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
mathematics@mdpi.com

[mdpi.com/journal/
mathematics](https://mdpi.com/journal/mathematics)





Mathematics

an Open Access Journal
by MDPI

Impact Factor 2.2
CiteScore 4.6



[mdpi.com/journal/
mathematics](https://mdpi.com/journal/mathematics)



About the Journal

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

Author Benefits

High Visibility:

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

Journal Rank:

JCR - Q1 (Mathematics) / CiteScore - Q1 (General Mathematics)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 17.3 days after submission; acceptance to publication is undertaken in 2.8 days (median values for papers published in this journal in the second half of 2025).