

# Special Issue

## New Trends in Mathematical Modeling, Analysis and Optimization for Engineering and Mechanics

### Message from the Guest Editors

Computational modeling has become essential in the engineering field in recent years for necessary analyses for real-life problems. Moreover, optimization techniques have arisen to improve results for several kinds of problems. Finally, in recent years, new techniques such as meshfree methodologies as well as novel finite element methods have emerged to complete a powerful range of tools capable of accurately reproducing the engineering mechanical problems of the 21st century. This Special Issue focuses on new trends in engineering modeling, including but not limited to: 1. Optimization techniques in computational mechanics;

2. Meshfree techniques applied to engineering;
3. Novel constitutive modeling for engineering materials;
4. Computational analysis for mechanics and engineering;
5. Bio-inspired optimization algorithms for computational modeling;
6. Multiscale material modeling;
7. Multiphase formulations applied to engineering;
8. General new trends in computational mechanics.

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### Guest Editors

Dr. Pedro Navas

Department of Continuum Mechanics and Structures, ETS Ingenieros de Caminos, Universidad Politécnica de Madrid, 28040 Madrid, Spain

Dr. Bo Li

College of Engineering, Peking University, Beijing 100871, China

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### Deadline for manuscript submissions

closed (31 January 2024)



# Mathematics

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Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[mathematics@mdpi.com](mailto:mathematics@mdpi.com)

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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.

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### 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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