



## Numerical and Machine Learning Methods for Applied Sciences

Guest Editors:

**Dr. Sergio Luis Suárez Gómez**

Applied Mathematical Modeling  
Group, Department of  
Mathematics, University of  
Oviedo, 3, 33003 Oviedo, Spain

**Dr. Carlos González-Gutiérrez**

Applied Mathematical Modeling  
Group, Department of  
Mathematics, University of  
Oviedo, 3, 33003 Oviedo, Spain

Deadline for manuscript  
submissions:

**closed (15 September 2024)**

### Message from the Guest Editors

Dear Colleagues,

Artificial intelligence methods are mathematical tools designed to learn and model complex physical systems and other science and real-life situations. The broad capabilities of intelligent models have allowed a vast number of applications to emerge in recent years in fields of engineering, health science, physics, economics, computational sciences, and so on. The aim of this Special Issue is to gather the latest improvements of the intelligent models as well as new approaches in applications in science. The topics covered in this Special Issue include but are not restricted to:

1. Design of self-learning models;
2. Improvements on already established artificial intelligence models;
3. Performance improvements in computing simulations;
4. Applications of these models on engineering problems, such as robotics, materials, etc.;
5. Modeling of complex systems;
6. Numerical models implementation;
7. Applications in vanguard physics problems;
8. Health sciences applications;
9. Bioengineering design;
10. And many other possible applications.





an Open Access Journal by MDPI

## 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, Grosspeteranlage 5  
4052 Basel, Switzerland

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

mdpi.com/journal/mathematics  
mathematics@mdpi.com  
X@MathematicsMDPI