

## Special Issue

# Mathematical, Optimization, and Computational Modeling in Machine Learning

### Message from the Guest Editors

This Special Issue provides a premier venue for people working on mathematical modeling, optimization, and computational modeling trying to understand machine learning, a research area at the forefront of artificial intelligence. We invite authors to submit groundbreaking research on any of, but not limited to, the following topics: a) Mathematical modeling

- Optimization techniques for machine learning
- Mathematical foundations of machine learning
- Information theory and machine learning
- Geometric deep learning

#### b) Optimization

- Model selection through optimization
- Hyperparameter tuning using optimization algorithms
- Feature selection while aiming to achieve a specific goal
- Scheduling and resource allocation in machine learning

#### c) Computational modeling

- Machine learning for scientific computing
- Simulation-based modeling for machine learning
- Computational modeling of neural networks and brain-inspired approaches
- Data-driven modeling for complex systems

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### Guest Editors

Prof. Dr. Gustavo Olague

Dr. Eddie Clemente

Dr. Rocío Ochoa-Montiel

Dr. Juan Villegas Cortez

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### Deadline for manuscript submissions

30 March 2026



## Axioms

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

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## About the Journal

### Message from the Editor-in-Chief

*Axioms* is dedicated to the foundations (structure and axiomatic basis, in particular) of mathematical theories, not only from a crisp or strictly classical sense, but also from a fuzzy and generalized sense. This includes the more innovative current scientific trends, devoted to discover and solve new challenging problems. The prime goal of *Axioms* is to publish first-class, original research articles under an open access policy with minimal fees for the authors. We would be pleased to welcome you as one of our authors.

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### Editor-in-Chief

Prof. Dr. Humberto Bustince

Department of Statistics, Computer Science and Mathematics, Public  
University of Navarra, 31006 Pamplona, Spain

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