

## Special Issue

# Mathematics in Fuzzy Logic System Modeling

### Message from the Guest Editors

The application trends in fuzzy logic systems are growing rapidly. Fuzzy logic is being used in an increasing number of applications, and it is becoming a standard tool for engineers and scientists. This Special Issue analyzes the mathematical theory used for modeling and for generating knowledge by hybrid learning methods of any class of fuzzy logic systems. Potential topics include, but are not limited to:

- Derivative-based learning methods;
- Non-derivative learning;
- Learning from reinforcement;
- Machine learning:
  - Unsupervised learning;
  - Supervised learning;
  - Semi-supervised;
  - Reinforcement learning.
- Deep learning;
- Learning from natural language processing;
- Non-common learning methods;
- Imitation in robotics;
- Optimization techniques;
- Evolutionary computing;
- Neural networks;
- Heuristics;
- Metaheuristics;
- Bio-inspired algorithms.

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### Guest Editors

Prof. Dr. Gerardo Maximiliano Mendez

Dr. Pascual Dorantes

Dr. María Aracelia Alcorta García

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### Deadline for manuscript submissions

30 November 2025



## Axioms

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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

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