# Special Issue

# Advances in Mathematical Optimization Algorithms and Its Applications

## Message from the Guest Editor

Mathematical optimization algorithms based on collective intelligence and its applications are a recent tool for solving complex optimization in computational intelligence. This Special Issue invites researchers to report their latest research work on the development of new improved mathematical optimization algorithms, or new applications of existing methods in the design of topologies of neural models, parameter adaptation in control systems and path planning of robots, etc., with ultimate goal of exploring future research directions. Potential themes include but are not limited to the following:

- Theoretical methods for understanding the behavior of mathematical optimization algorithms;
- Statistical approaches for understanding the behavior of mathematical optimization algorithms;
- Optimization of neuro-fuzzy models;
- Optimization of mathematical fuzzy logic models;
- Optimization of emergent neural models with natureinspired algorithms;
- Mathematical fuzzy logic and intelligent and automatic control;
- Mathematical bio-inspired algorithms.

#### **Guest Editor**

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## Deadline for manuscript submissions

30 September 2025



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## 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.

### Editor-in-Chief

### Prof. Dr. Humberto Bustince

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