

Special Issue

Emerging Applications and Theoretical Advances in Variational Methods, Functional Analysis, and Mathematical Optimization

Message from the Guest Editor

We invite submissions addressing, but not limited to:

- Nonlocal and Fractional Variational Calculus: Extending classical principles to nonlocal interactions and fractional calculus models, with applications in physics and engineering.
- Geometric and Optimal Transport Theories: Modern geometric methods, including links between variational calculus and optimal transport, applied to problems in economics, image processing, and physics.
- Stochastic and Quantum Variational Principles: Incorporating randomness and quantum effects in variational frameworks for the study of stochastic systems and quantum mechanics.
- Machine Learning and Data-Driven Methods: Leveraging variational principles to solve optimization problems in machine learning, artificial intelligence, and big data.
- Multiscale and Complex Systems: Applications in multiscale modeling, complex systems, and materials science where variational methods offer powerful tools for analysis and optimization.
- Classical Methods Revisited: New insights into classical problems, revisiting established variational approaches in light of recent theoretical developments.

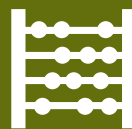
Guest Editor

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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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