Special Issue

A Century of Quantum Mechanics: Mathematical Foundations and Computational Applications

Message from the Guest Editor

The year 2025 marks the centenary of quantum mechanics, a revolutionary scientific milestone that fundamentally reshaped our understanding of the physical world. From its mathematical formulation to its contemporary computational implementations. quantum theory continues to be a dynamic and evolving domain. Over the past century, quantum theory has evolved from a foundational theory in physics to a cornerstone of modern technological innovation. In recent years, quantum computing has emerged as a disruptive paradigm, offering unprecedented capabilities for the solution of complex computational problems. This Special Issue seeks to honor this monumental anniversary by gathering cutting-edge research that bridges foundational quantum theory with current advances in quantum computing, quantum machine learning, and hybrid quantum-classical intelligent systems. We welcome theoretical, algorithmic, and experimental contributions that reflect the evolution and transformative potential of quantum technologies.

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.

Editor-in-Chief

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