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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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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