



## Foundations of Quantum Mechanics

Guest Editors:

**Prof. Dr. Mariela Portesi**

**Prof. Dr. Alejandro Hnilo**

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Deadline for manuscript  
submissions:

**closed (30 June 2017)**

### Message from the Guest Editors

Since its origins, quantum theory posed deep questions with regard to the fundamental problems of physics. During the last few decades, the advent of quantum information theory and the possibility of developing quantum computers, gave rise to a renewed interest in foundational issues. Research in the foundations of quantum mechanics was particularly influenced by the development of novel laboratory techniques, allowing for the experimental verification of the most debated aspects of the quantum formalism.

Topics of the Special Issue:

- Quantum Information Science
- Quantum Statistical Mechanics
- Information Measures in Quantum Theory
- Quantum Correlations
- Geometrical Methods Applied to Quantum Theory
- Violation of Bell Inequalities
- Quantum Probabilities
- Decoherence and Classical Limit
- Quantum Computing
- Interpretations of Quantum Mechanics
- Quantum Contextuality
- Quantum Indistinguishability
- Quantum Logic
- Algebraic Methods in Quantum Theory
- Hidden Variable Theories
- Non-linear Methods Applied to Quantum Theory
- Foundations of Relativistic Quantum Mechanics





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## Editor-in-Chief

### Prof. Dr. Kevin H. Knuth

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## Message from the Editor-in-Chief

The concept of entropy is traditionally a quantity in physics that has to do with temperature. However, it is now clear that entropy is deeply related to information theory and the process of inference. As such, entropic techniques have found broad application in the sciences.

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