Special Issue

Emergent Quantum Mechanics - David Bohm Centennial Perspectives

Message from the Guest Editors

This Special Issue explores the possibility of an ontology for quantum mechanics. The focus is the search for a "deeper-level" theory for quantum mechanics that interconnects three fields of knowledge: emergence, the quantum, and information. Contributions will be featured that present current advances in realist approaches to quantum mechanics, including new experiments, work in quantum foundations, and the physics of the quantum observer and the conscious experimenter agent. Topics of the Special Issue:

- Interpretations of Quantum Mechanics
- Nonlocality and Violation of Bell Inequalities
- Quantum Probabilities and Contextuality
- Quantum Causality and Ontology
- Information Measures in Quantum Theory
- Quantum Observation and the Physics of the Experimenter Agent
- Nonlinear Methods applied to Quantum Theory
- Self-organization and Quantum Emergence
- Hidden Variable Theories and Relativity
- Emergent Space-time

Guest Editors

Dr. Jan Walleczek

Dr. Gerhard Grössing

Dr. Paavo Pylkkänen

Prof. Dr. Basil Hiley

Deadline for manuscript submissions

closed (30 April 2018)



an Open Access Journal by MDPI

Impact Factor 2.0 CiteScore 5.2 Indexed in PubMed



mdpi.com/si/10935

Entropy Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 entropy@mdpi.com

mdpi.com/journal/ entropy





an Open Access Journal by MDPI

Impact Factor 2.0 CiteScore 5.2 Indexed in PubMed



About the Journal

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.

Entropy is an online open access journal providing an advanced forum for the development and/or application of entropic and information-theoretic studies in a wide variety of applications. Entropy is inviting innovative and insightful contributions. Please consider Entropy as an exceptional home for your manuscript.

Editor-in-Chief

Prof. Dr. Kevin H. Knuth

Department of Physics, University at Albany, 1400 Washington Avenue, Albany, NY 12222, USA

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Inspec, PubMed, PMC, Astrophysics Data System, and other databases.

Journal Rank:

JCR - Q2 (Physics, Multidisciplinary) / CiteScore - Q1 (Mathematical Physics)

