



Emergent Quantum Mechanics – David Bohm Centennial Perspectives

Guest Editors:

Dr. Jan Walleczek

walleczek@phenoscience.com

Dr. Gerhard Grössing

ains@chello.at

Dr. Paavo Pylkkänen

paavo.pylkkanen@helsinki.fi

Dr. Basil Hiley

b.hiley@bbk.ac.uk

Deadline for manuscript
submissions:

30 April 2018

Message from the Guest Editors

Dear Colleagues,

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

Dr. Jan Walleczek

Dr. Gerhard Grössing

Dr. Paavo Pylkkänen

Dr. Basil Hiley

