Special Issue

Quantum Physics: An Information Theory

Message from the Guest Editor

This Special Issue invites researchers to address this exciting field of interconnection between quantum physics and information theory with the emergence of thermodynamics. Topics of interest include, but are not limited to, the following:

- Does quantum entropy play a physical role?
- What are the exact connections between quantum entropy and thermodynamics entropy?
- Quantum thermalization.
- Evaluation of quantum entropy production in physical scenarios (atomic physics, cavity constructions, particle collisions, scattering, and the arrow of time). Is the Geiger–Kedem hypothesis, i.e., their entropy never decreases in a closed system, verified or falsified?
- Gravity, general relativity, and entropy production.
- Black hole entropy.
- Physics as information science.
- Quantum computing; in particular, the role of quantum entropy in achieving a better understanding of the quantum computing gates and processes.

Guest Editor

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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

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