Special Issue

Information-Theoretic Concepts in Physics

Message from the Guest Editors

Information-theoretic concepts are becoming increasingly important in physics, both in applied and theoretical physics. Examples include using quantum-mechanical systems to perform computations and transmit information; the use of information-theoretic concepts to characterize gravitational phenomena, such as black holes; informational axiomatizations and interpretations of quantum theory; and many others. The goal of this Special Issue is to provide an interdisciplinary snapshot of the foundational and philosophical research at the cutting edge of this important area of physics. We welcome submissions focused on topics such as (but not restricted to):

- Historical perspectives on the use of informational concepts in physics;
- Quantum and classical information;
- Quantum and classical computational resources;
- Informational interpretations and axiomatizations of physical theories;
- Informational approaches to spacetime phenomena;
- Informational characterizations of thermodynamical phenomena and the thermodynamics of information;
- Informational characterizations of open systems phenomena;
- General methodological and philosophical issues related to the physics of information.

Guest Editors

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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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