Special Issue

Entropy, Quantum Information and Entanglement

Message from the Guest Editor

Classical information theory is primarily concerned with the problem of sending classical information over communications channels which operate in accordance with the laws of classical physics. The three fundamental goals of quantum information theory involve: (1). identifying new classes of static resources, defined as types of 'information'; (2). new elementary classes of dynamical processes, defined as types of 'information processing'; (3). means and measures to quantify the resource tradeoffs incurred when performing elementary quantum dynamical processes. One of the entirely new classes of static resources allowed for by quantum mechanics is quantum entanglement. The applications of entanglement are now well known to manifold, from applied applications such as cryptography, metrology, and communication/networking computing to new fundamental insights into particle and black hole physics. The aim of this Special Issue is to collect works exhibiting novel connections amongst the topics of entropy, quantum information, and entanglement.

Guest Editor

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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.

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.

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