Special Issue

The Ubiquity of Entropy

Message from the Guest Editor

Entropy is one of the most important concepts in physics. Its prominent role in the description of macroscopic systems was first recognized by Clausius, Maxwell, Kelvin, Boltzmann, and many others when the foundations of Statistical Mechanics have been laid. Since then, the domain of application of the concept of entropy has been greatly extended, and nowadays entropy is regarded as a paradigm with which the most intriguing challenges of modern physics are faced. Among these, we find the description of finite classical and quantum systems, at the nanoscopic scale, that are nowadays considered an essential part of forthcoming (bio-)technologies. To name just a few emblematic problems whose solution still remain elusive, we mention the quantitative characterization of the complexity of classical and quantum systems and the qualification and quantification of entanglement in quantum systems.

Guest Editor

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Deadline for manuscript submissions

closed (31 October 2019)

Entropy

an Open Access Journal by MDPI

Impact Factor 2.0
CiteScore 5.2
Indexed in PubMed

mdpi.com/si/21036

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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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