Special Issue

Nature of Entropy and Its Direct Metrology

Message from the Guest Editor

Thermodynamics has identified entropy as the central operational quantity in any kind of heat engine. Entropy can fall down its thermodynamic potential, which is the absolute temperature, and released energy is transferred towards a useful process. The central role of entropy in thermal processes demands a better understanding of its nature and of the entropic properties of gases, liquids, and solids in terms of entropy capacity, entropy capacitance, entropy current, entropy current density, entropy conductivity, and entropy conductance. The metrology of these entropic quantities requires reflections on adequate units of measurement, as well as the realization of measurements in practice and their traceability. Contributions addressing any of these issues are very welcome. This Special Issue aims to be a forum for the presentation of new and improved insight into the nature of entropy and its metrology. Instructive analyses of the thermal processes and critical reflections on the historical perception of entropy in the field of thermodynamics fall within the scope of this Special Issue.

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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