Special Issue

Dissipative Structuring in Life

Message from the Guest Editor

The entropy of a system provides a measure of missing information (or randomness) in the system. The concept of entropy was introduced by Clausius in 1865 to reformulate the second law of thermodynamics in a more elegant way. In a revolutionary stroke, in 1870 Boltzmann explained how entropy can indeed be used to understand the macroscopic world via the underlying molecular dynamics. In general, fluid flows are out of equilibrium, so it is not formally possible to ascribe the concept of entropy to fluid flows. However, one typically circumvents this issue by assuming the fluid to be locally close to equilibrium. In the same vein, fully developed turbulence (FDT) in fluids is a dissipative dynamical system with enormous strongly interacting degrees of freedom in a state of strong departure from absolute statistical equilibrium. So, equilibrium statistical mechanics is not formally applicable to FDT, and equilibrium states are not realizable in FDT.

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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