Scale Invariance and Nonequilibrium Thermodynamics in Natural Systems

Guest Editor:

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Message from the Guest Editor

There has been an equivalent formalism of equilibrium thermodynamics in terms of fractal quantities for two or three decades. However, the derivation of a physical mapping in terms of Hamiltonian flux dynamics for open non-equilibrium systems is a more recent development. This Special Issue of *Entropy* is intended to offer a publication forum examining these ideas; experimental, observational and theoretical. It has been argued that since scale invariance has been observed on all scales from molecular to astronomical, the technique is potentially applicable to a very wide range of phenomena; the utility of entropy and chemical potential—the Gibbs energy of individual substances—should offer many avenues of exploration.

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Special Issue

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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.

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