Special Issue

Entropy Measures for Data Analysis: Theory, Algorithms and Applications

Message from the Guest Editor

Entropies and entropy-like quantities are playing an increasing role in modern non-linear data analysis. Fields of their application reach from diagnostics in physiology, for instance, EEG, MEG and ECG, to econophysics and engineering. During the last few years, classical concepts as the Approximate entropy and the Sample entropy have been supplemented by new entropy measures, like the Permutation entropy and various variants of it. Recent developments are focused on multidimensional generalizations of the concepts with a special emphasize on the quantification of coupling between time series and system components behind them. Some of the main future challenges in the field are a better understanding of the nature of the various entropy measures and their relationships, with the aim of their adequate application including good parameter choices. The utilization of entropy measures as features in automatic learning and their application to large and complex data for tasks as classification, discrimination and finding structural changes requires fast and well-founded algorithms.

Guest Editor

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About the Journal

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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