Special Issue

Information Theory and Nonlinear Signal Processing

Message from the Guest Editors

With the rapid development of information theory and nonlinear signal analysis techniques, the typical algorithms such as entropy algorithms have achieved great success across the fields of mechanical, civil, aerospace, transportation, and biomedical engineering. These kinds of algorithms provide powerful tools for quantitative analysis of different types of sensor-collected signals. The information theory and nonlinear signal processing contribute to reflecting the irregularity and complexity of complex systems by extracting nonlinear characteristics. This Special Issue focuses on the new trends in information theory and nonlinear signal processing-based diagnosis and monitoring research. Both theoretical and application research will be considered. Particular attention will be paid to new entropy algorithms and applications in fault/disease diagnosis including detection and prognostics, damage tracking of complex systems, health monitoring of civil structures, structural dynamics and modal analysis, and biomedical signal analysis. Approaches of interest include quantitative analysis, data-driven techniques, and entropy-involved machine/deep learning.

Guest Editors

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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.

Editor-in-Chief

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