Special Issue

Entropy-Based Uncertainty Management Approaches for Analytics and Information Fusion (AIF)

Message from the Guest Editors

Managing and reducing uncertainty is an important, even crucial, issue of the so-called analytics and information fusion (AIF) processing chain to support situation awareness. The AIF chain involves the analysis, modeling, and processing of uncertain information. By modeling uncertain information, the essential characteristics of the given information can be extracted effectively. Uncertainty management is the key to uncertain information modeling, and many scholars have put forward various theories (such as evidence theory, fuzzy sets, possibility theory, rough sets, D number, Z number, and hybridization of these methods). Various uncertainty typologies (aleatory, epistemic, fuzziness, nonspecificity, discord, ambiguity, divergence, etc.) and measurement methods have been proposed, but there is still no full consensus, making this an open research issue. Shannon entropy is a powerful tool in the probability theory framework, but this concept needs to be rethought when using other frameworks such as possibility theory, evidence theory, and fuzzy sets. New interpretations of entropy are needed.

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Deadline for manuscript submissions

closed (25 September 2022)

Entropy

an Open Access Journal by MDPI

Impact Factor 2.1
CiteScore 4.9
Indexed in PubMed

mdpi.com/si/110613

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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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