Special Issue

Information Theory in Machine Learning and Data Science II

Message from the Guest Editor

Information theoretic measures such as entropy, mutual information, and information divergence, are useful in many machine learning and data science applications including model selection, structure learning, clustering, regression, classification, causality analysis, regularization, and extending machine learning algorithms to distributional features. In this Special Issue, we seek papers that discuss advances in the application of information theory in machine learning and data science problems. Possible topics of interest include, but are not limited to, estimation of information theoretic measures, deep learning approaches that incorporate information theory, fundamental limits of machine learning algorithms, optimization and learning with information theoretic constraints, information bottleneck methods, information theoretic approaches to adaptive data analysis, extending machine learning algorithms to distributional features, Bayes error rate estimation, and applications of information theory in reinforcement learning.

Guest Editor

Dr. Kevin R. Moon

Department of Mathematics & Statistics, Utah State University, Logan, UT 84322, USA

Deadline for manuscript submissions

closed (15 June 2021)

Entropy

mdpi.com/si/44337

mdpi.com/journal/
entropy

MDPI

Entropy

mdpi.com/journal/
entropy

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.

Editor-in-Chief

Prof. Dr. Kevin H. Knuth
Department of Physics, University at Albany, 1400 Washington Avenue, Albany, NY 12222, USA

Author Benefits

Open Access:
free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:
indexed within Scopus, SCIE (Web of Science), Inspec, PubMed, PMC, Astrophysics Data System, and other databases.

Journal Rank:
JCR - Q2 (Physics, Multidisciplinary) / CiteScore - Q1 (Mathematical Physics)