Special Issue

Theory and Application of the Information Bottleneck Method

Message from the Guest Editors

Even though more than two decades have passed since Tishby et al. introduced an information theoretical setup termed the information bottleneck method, it still is an extremely interesting and hot research topic. A particularly fascinating aspect of this concept is its generality, which made the information bottleneck method a framework with many versatile applications over the last few years. Applications of the information bottleneck method now cover many different fields, for example, machine learning, deep learning, neuroscience, multimedia and image processing, data processing, source coding, channel coding and information processing. In addition, the theoretical backgrounds of the method, generalizations and algorithmic approaches became fruitful research topics.

This Special Issue will consolidate the latest ideas and findings on applications and theory of the information bottleneck method. Intentionally, we do not narrow the scope to a particular field, but encourage submissions from all engineering disciplines. We especially appreciate contributions on machine learning and signal processing in communications.

Guest Editors

Dr. Jan Lewandowsky
Fraunhofer Institute for Communication, Information Processing and Ergonomics FKIE, 53343 Wachtberg, Germany

Prof. Dr. Gerhard Bauch
Hamburg University of Technology, 21073 Hamburg, Germany

Deadline for manuscript submissions

closed (30 April 2023)

Entropy

an Open Access Journal by MDPI

Impact Factor 2.0
CiteScore 5.2
Indexed in PubMed

mdpi.com/si/100269

Entropy
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
entropy@mdpi.com

mdpi.com/journal/entropy

Entropy

an Open Access Journal by MDPI

Impact Factor 2.0
CiteScore 5.2
Indexed in PubMed

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)

MDPI