

Topical Collection

Graphs and Networks from an Algorithmic Information Perspective

Message from the Collection Editors

Graph theory and network science are classic subjects in mathematics widely investigated in the 20th century, transforming research in many fields of science from economy to medicine. The analysis of such networks is even more challenging for multiscale, multilayer networks, that are neither static nor in an equilibrium state. Recent advances in network science suggest that algorithmic information theory could play an increasingly important role in breaking those limits imposed by traditional statistical analysis in modeling evolving complex networks or interacting networks.

This Special Issue is a forum for the presentation and exploration of the foundations of new and improved techniques for the analysis and interpretation of real-world natural and engineered complex systems. Not only from the perspective of algorithmic information theory but also in connection with dynamical systems and causality. Model-driven techniques augmenting explainability or better interpretable approaches to machine learning, better causation-grounded graphical models, and algorithmic information dynamics in application to networks, all fall within the scope of this Special Issue.

Collection Editors

Dr. Narsis A. Kiani

Dr. Hector Zenil

Prof. Dr. Jesper Tegnér



Entropy

an Open Access Journal
by MDPI

Impact Factor 2.0
CiteScore 5.2
Indexed in PubMed



mdpi.com/si/69106

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

[mdpi.com/journal/
entropy](https://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](https://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)