



## Algorithmic Information Dynamics: A Computational Approach to Causality from Cells to Networks

Collection Editors:

**Dr. Hector Zenil**

School of Biomedical  
Engineering and Imaging  
Sciences, King's College London,  
London WC2R 2LS, UK

**Dr. Felipe S. Abrahão**

1. National Laboratory for Scientific Computing (LNCC), Petropolis 25651-075, RJ, Brazil
2. Algorithmic Nature Group, Laboratoire de Recherche Scientifique (LABORES) for the Natural and Digital Sciences, 75005 Paris, France
3. Oxford Immune Algorithmics, Reading RG1 3EU, UK

### Message from the Collection Editors

Algorithmic information dynamics (AID) is a new type of discrete calculus based on computer programming, employed to study complex systems by exploring the software space of models explaining a system subject to changes or perturbations. The objective is to look for computable mechanistic generating models and first principles, thereby ushering in the next generation of scientific discovery and model-driven machine learning.

We encourage authors and researchers to continue exploring how AID can help us to understand new aspects of systems science by building rich causal computational models and submitting their results to this Special Issue. They would thereby be contributing to progress in the methodological aspects of systems science, advancing it beyond its current reliance on simplistic data analysis and ad hoc measures.





an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Kevin H. Knuth

Department of Physics, University  
at Albany, 1400 Washington  
Avenue, Albany, NY 12222, USA

## 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.

## 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)

## Contact Us

---

Entropy Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/entropy](http://mdpi.com/journal/entropy)  
[entropy@mdpi.com](mailto:entropy@mdpi.com)  
[X@Entropy\\_MDPI](https://twitter.com/Entropy_MDPI)