

## Special Issue

# Entropy in Dynamic Systems

### Message from the Guest Editors

This Special Issue aims at covering diverse research from qualitatively different sciences, linked by dynamical entropy phenomena, understood in a broad manner. In particular, the following topics are of interest:

- Complex analysis of difference and differential equations;
- Dynamics and control of complex engineering systems;
- Advances in fractional calculus;
- Mathematical modelling of entropy in classical and generalized dynamical systems;
- Entropy in physics, applied mathematics and information theory;
- Entropy-based approaches to study transportation, social, financial and economical networks;
- Deterministic chaotic versus stochastic processes;
- Vibration signal processing and complex dynamics;
- Entropy, Lyapunov exponents, Fourier and wavelet transforms and dimension;
- Local, metric, topological, symbolic extension and smooth/non-smooth dynamical entropy.

Prof. Dr. Jose A.T. Machado

---

### Guest Editors

Prof. Dr. Jan Awrejcewicz

Faculty of Mechanical Engineering, Lodz University of Technology, 90-924 Łódź, Poland

Prof. Dr. José A. Tenreiro Machado

Department of Electrical Engineering, Institute of Engineering, Polytechnic Institute of Porto, 4249-015 Porto, Portugal

---

### Deadline for manuscript submissions

closed (30 September 2018)



## Entropy

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.1  
CiteScore 4.9  
Indexed in PubMed



[mdpi.com/si/12170](https://mdpi.com/si/12170)

*Entropy*  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[entropy@mdpi.com](mailto:entropy@mdpi.com)

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





# Entropy

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.1  
CiteScore 4.9  
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)