

Special Issue

Entropy and Information in Biological Systems

Message from the Guest Editor

In 1943, Erwin Schrödinger proposed that an understanding of the true nature of living systems first requires an apprehension of their ability to control entropy dynamics within their environment. The development of information theory for communications by Claude Shannon was subsequently linked to the concept of entropy. Living organisms utilize and exchange information as a form of biological currency during the process of adapting to their environmental conditions. The mechanics of the flow of information in open living systems have not been deeply explored in the literature and deserve attention. The derivation of biological systems from the information/entropy perspective could provide considerable insights into the functioning and fundamental nature of entropy dynamics and provide a foundation for a comprehensive theoretical biology.

Guest Editor

Prof. Dr. Richard Summers

Department of Physiology & Biophysics, University of Mississippi
Medical Center, 2500 North State Street, Jackson, MS 39216, USA

Deadline for manuscript submissions

closed (20 May 2024)



Entropy

an Open Access Journal
by MDPI

Impact Factor 2.0
CiteScore 5.2
Indexed in PubMed



mdpi.com/si/188552

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)