

Special Issue

Non-equilibrium Physics and Its Interdisciplinary Applications

Message from the Guest Editors

No real-world (e.g., natural, social, engineering) system is strictly in equilibrium. The implication of this is that well-known (e.g., maximization/minimization) principles governing systems in equilibrium are not appropriate to describe the dynamics of real-world systems and could, at most, approximate some near-equilibrium systems subject to small or slow perturbations. And yet that is how physics is taught and often pursued, because it is cleaner and frankly significantly easier. While purposely isolated laboratory systems may approximate the equilibrium, the real world—and all its problems, from online dangers to disease development/spreading, turbulent flows, market crashes and wars—cannot. In fact, all these collective effects are inherently transient, somehow appearing from out of nowhere and often displaying patterns akin to (non-equilibrium) dynamical phase transitions. But when and how?

Guest Editors

Dr. Neil Johnson

Physics Department, George Washington University, Washington, DC 20056, USA

Dr. Pedro D. Manrique

Department of Physics, Florida Polytechnic University, Lakeland, FL 33805, USA

Deadline for manuscript submissions

closed (31 October 2024)



Entropy

an Open Access Journal
by MDPI

Impact Factor 2.1
CiteScore 4.9
Indexed in PubMed



mdpi.com/si/197124

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 2.1
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)