



*entropy*



an Open Access Journal by MDPI

## Generalized Statistical Thermodynamics

Guest Editors:

**Prof. Dr. Themis Matsoukas**

Department of Chemical Engineering, Pennsylvania State University, 313 Chemical and Biomedical Engineering Building, University Park, PA 16802, USA

**Prof. Dr. Milton W. Cole**

Department of Physics, Penn State University, 104 Davey Lab, University Park, PA 16802, USA

Deadline for manuscript submissions:

**closed (30 September 2020)**

### Message from the Guest Editors

Statistical thermodynamics, undoubtedly one of the most important achievements in mathematical physics, is the rigorous mathematical language that describes the equilibrium state of a system of interacting particles, classical or quantum. Its appeal, however, extends beyond molecular systems to generic stochastic populations, whether these are colloidal particles, ecological systems or financial markets. At its most fundamental level, statistical thermodynamics is a variational calculus of the most probable distribution: Out of all possible distributions, the one that materializes as the macroscopic observable is the most probable distribution.

This Special Issue solicits contributions that apply the language and tools of statistical thermodynamics to systems beyond molecules. Areas of special interest include clustering and fragmentation in particulate systems, propagation and extinction of epidemics, statistical thermodynamics of networks, and the application of statistical mechanics to stochastic processes in general.



[mdpi.com/si/35372](https://mdpi.com/si/35372)

# Special Issue



*entropy*



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 \(Web of Science\)](#), [MathSciNet](#), [Inspec](#), [PubMed](#), [PMC](#), [Astrophysics Data System](#), and [other databases](#).

**Journal Rank:** JCR - Q2 (*Physics, Multidisciplinary*) / CiteScore - Q1 (*Mathematical Physics*)

## Contact Us

---

*Entropy*  
MDPI, St. Alban-Anlage 66  
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)  
[@Entropy\\_MDPI](https://twitter.com/Entropy_MDPI)