

Special Issue

Thermodynamics of Sustainability

Message from the Guest Editor

Sustainability must be global, or it will not be. Our planet is a thermodynamic system, as are ecosystems, the atmosphere, the hydrosphere and the crust. Natural resources are at risk of depletion, meanwhile, the waste is overwhelming. Minerals, fresh waters, fertile soils, biota and waste are also thermodynamic systems to be characterized. A Second Law vision of natural systems is largely lacking in many research fields relating to sustainability issues. In fact, entropy is used as a metaphor in ecological economics rather than as a quantitative tool. Exergy-related analyses are almost restricted to energy engineering designs and slowly rising in macroeconomic studies. Topics such as Second Law assessment of all natural resources and waste—including fertile soils and biotic systems, exergy modelling of resource use trends, the intricacies and deficiencies of materials circularity, exergy-based indicators of planet degradation and the loss of natural capital, natural cycles and planet boundaries, thermodynamics of biodiversity and resilience, and so on, are welcomed.

Guest Editor

Prof. Dr. Antonio Valero

Research Centre for Energy Resources and Consumption (CIRCE),
University of Zaragoza, 50018 Zaragoza, Spain

Deadline for manuscript submissions

closed (28 February 2019)



Entropy

an Open Access Journal
by MDPI

Impact Factor 2.0
CiteScore 5.2
Indexed in PubMed



mdpi.com/si/16645

Entropy
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
entropy@mdpi.com

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)