

## Special Issue

# Thermodynamics of Interfaces

### Message from the Guest Editors

The topic explores the thermodynamic processes occurring at the boundaries between different phases or within confined environments. Interfaces play a pivotal role in numerous scientific and industrial fields, including materials science, nanotechnology, biology, and environmental science. Understanding the thermodynamics at these interfaces is essential for advancing technologies related to drug delivery, energy storage, and environmental remediation. This Special Issue aims to highlight recent advances in the study of interfacial thermodynamics, encompassing both theoretical and experimental perspectives. Topics of interest include, but are not limited to, interfacial tension and adsorption phenomena, surface and surface-mediated phase transitions, molecular self-assembly at interfaces, and the thermodynamics of confined systems. We seek contributions that provide insights into the behavior near interfaces in complex systems, including biomolecular interfaces, soft matter, and engineered materials. Researchers are invited to submit papers that present innovative theoretical models, experimental techniques, and applications relevant to interfacial phenomena.

### Guest Editors

Dr. Christopher Balzer

Materials Research Lab, University of California, Santa Barbara, CA 93106, USA

Prof. Dr. Tapio Ala-Nissila

1. Center of Excellence in Quantum Technology, Department of Applied Physics, Aalto University, P.O. Box 11100, 00076 Espoo, Finland  
2. Interdisciplinary Centre for Mathematical Modelling, Department of Mathematical Sciences, Loughborough University, Loughborough LE11 3TU, Leicestershire, UK

### Deadline for manuscript submissions

closed (30 April 2025)



## Entropy

an Open Access Journal  
by MDPI

Impact Factor 2.0  
CiteScore 5.2  
Indexed in PubMed



[mdpi.com/si/215062](https://mdpi.com/si/215062)

*Entropy*  
Editorial Office  
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 2.0  
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)