

## Special Issue

# Quantum Probability and Randomness

### Message from the Guest Editors

The last few years have been characterized by a tremendous development of quantum information and probability and their applications including quantum computing, quantum cryptography and quantum random generators. In spite of the successful development of quantum technology, its foundational basis is still not concrete and contains a few sandy and shaky slices. The areas covered include:

- Foundations of quantum information theory and quantum probability;
- Quantum versus classical randomness and quantum random generators;
- Generalized probabilistic models;
- Quantum contextuality and generalized contextual models;
- Bell's inequality, entanglement and randomness;
- Quantum probabilistic modeling of the process of decision making under uncertainty.

Of course, possible topics need not be restricted to the list above; any contribution directed to the improvement of quantum foundations, development of quantum probability and randomness is welcome.

---

### Guest Editors

Prof. Dr. Andrei Khrennikov

International Center for Mathematical Modeling in Physics and Cognitive Sciences, Linnaeus University, SE-351 95 Växjö, Sweden

Prof. Dr. Karl Svozil

Institute for Theoretical Physics, Vienna University of Technology  
Wiedner Hauptstrasse 8-10/136, A-1040 Vienna, Austria

---

### Deadline for manuscript submissions

closed (31 August 2018)



## Entropy

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.0  
CiteScore 5.2  
Indexed in PubMed



[mdpi.com/si/11819](https://mdpi.com/si/11819)

*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)