



Geometry and Quantum Thermodynamics

Guest Editors:

Dr. Xu Dazhi

Center for Quantum Technology
Research, School of Physics,
Beijing Institute of Technology,
Beijing 100811, China

Dr. Chen Wang

Department of Physics, Zhejiang
Normal University, Jinhua
321004, China

Deadline for manuscript
submissions:

closed (15 March 2023)

Message from the Guest Editors

The geometric description of thermodynamics has a long history of development since the work of Gibbs. The geometric method is not only appropriate for constructing the framework of thermodynamics, but it is also an elegant and effective tool in solving practical problems such as optimization of thermodynamics processes. Today, the role of geometry is receiving considerable attention from the community of quantum thermodynamics. It is hoped this Special Issue will provide a venue for recent developments in solving quantum thermodynamic problems with geometric methods, as well as thinking of the foundation of quantum thermodynamics from a geometric perspective. The topics of interest include but are not restricted to the following:

1. Thermodynamic length in optimizing quantum thermodynamic processes;
2. Unify description of classical and quantum thermodynamic uncertainty relations from a geometric perspective;
3. Geometry and quantum information erasing;
4. Contact geometric structure of quantum thermodynamics.





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

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

Contact Us

Entropy Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/entropy
entropy@mdpi.com
[X@Entropy_MDPI](https://twitter.com/Entropy_MDPI)