

Special Issue

Quantum Computing for Complex Dynamics, 2nd Edition

Message from the Guest Editors

During the 1980s, physicists combined a quantum mechanical model with computer science, producing quantum computers. These quantum computers could perform much better than a classical computer. Since then, the research on quantum computation has been growing rapidly, both in architecture and algorithms. Complex dynamics are known for their complexity, chaos, and randomness, which widely exist in the field of cryptography, communication, chemistry, and so on. It is hard for classic computers to deal with complex dynamics, while quantum computers act as an ideal tool with which to calculate and simulate them. This Special Issue mainly focuses on the state of the art of the research on quantum computation and quantum algorithms, particularly that on the computation of the complex dynamics.

Guest Editors

Dr. Heng Fan

Key Laboratory of Condensed Matter Theory and Computation, Institute of Physics, Chinese Academy of Sciences, Beijing, China

Prof. Dr. Guilu Long

State Key Laboratory of Low-Dimensional Quantum Physics and Department of Physics, Tsinghua University, Beijing 100084, China

Deadline for manuscript submissions

closed (30 December 2024)



Entropy

an Open Access Journal
by MDPI

Impact Factor 2.0
CiteScore 5.2
Indexed in PubMed



mdpi.com/si/202182

Entropy
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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)