



Topological Aspects of Quantum Gravity and Quantum Information Theory

Guest Editors:

Dr. Ivan Arraut

FSE and FBL, University of Saint Joseph, Estrada Marginal da Ilha Verde, 14-17, Macao, China

Prof. Dr. Stefan Heusler

Institut für Didaktik der Physik, Universität Münster, 48149 Münster, Germany

Deadline for manuscript submissions:

30 September 2024

Message from the Guest Editors

Dear Colleagues,

Both in the field of quantum gravity and in quantum information theory, the importance of topology is increasing. The discovery of topological phases of matter, together with the existence of analogue systems of gravity and their evident relation to quantum information, bring interesting scenarios where important discoveries will appear.

Understanding topological aspects in gravity might have a direct relation to topological aspects in related field theories as well as in condensed matter systems. These important subjects will be explored in this Special Issue.

This Special Issue invites contributions reporting progress related to topological aspects both in the field of quantum gravity and in quantum information theory. Moreover, contributions focusing on suitable pedagogical introductions and model building related to existing theories are welcome.





symmetry



an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Sergei D. Odintsov

1. Institució Catalana de Recerca i Estudis Avançats (ICREA),
Passeig Luis Companys, 23,
08010 Barcelona, Spain
2. Institute of Space Sciences
(ICE-CSIC), C. Can Magrans s/n,
08193 Barcelona, Spain

Message from the Editor-in-Chief

Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

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), CAPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

Journal Rank: JCR - Q2 (*Multidisciplinary Sciences*) / CiteScore - Q1 (General Mathematics)

Contact Us

Symmetry Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

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

mdpi.com/journal/symmetry
symmetry@mdpi.com
X@Symmetry_MDPI