

## Special Issue

# Symmetries and Symmetry Breaking in Neutrino Physics and Astrophysics

### Message from the Guest Editor

This Special Issue, "Symmetries and Symmetry Breaking in Neutrino Physics and Astrophysics," invites contributions exploring the profound interplay between symmetry principles and their breaking in one of the most enigmatic areas of modern physics, neutrino physics and astrophysics. Symmetries are at the heart of our understanding of the fundamental interactions in nature, and this Special Issue focuses on the frontiers of the Standard Model embodied by the neutrino and its mysteries. We welcome original research and reviews addressing topics of great interest, such as the origin of neutrino masses, CP-violation in the leptonic sector, standard and non-standard neutrino interactions, matter effects and resonances, the cosmic neutrino background and leptogenesis, and investigations into astrophysical and ultra-high-energy neutrino sources. This Special Issue aims to provide a platform for advancing the theoretical, experimental, and computational aspects of neutrino physics and astrophysics, shedding light on how symmetries and their breaking influence phenomena across a wide range of energy and distance scales...

### Guest Editor

Prof. Dr. Gustavo A. Valdiviesso

Instituto de Ciências e Tecnologia, Universidade Federal de Alfenas  
UNIFAL-MG, Poços de Caldas 37715-400, MG, Brazil

### Deadline for manuscript submissions

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## Symmetry

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*Symmetry*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[symmetry@mdpi.com](mailto:symmetry@mdpi.com)

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## About the Journal

### 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.

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### Editor-in-Chief

Prof. Dr. Sergei Odintsov

1. ICREA, 08010 Barcelona, Spain

2. Institute of Space Sciences (IEEC-CSIC), C. Can Magrans s/n, 08193 Barcelona, Spain

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