# Special Issue

# Symmetry in Primordial Black Holes

### Message from the Guest Editors

This Special Issue aims to present research regarding the intriguing properties of black holes and their relationship with the very early universe. Currently, particle physics (with its new ideas and unification approaches) has clarified some fundamental connections between extra dimensions, inflation, and holography, and the possibility that the young universe is filled with unsuspected primordial fossils such as cosmic strings, PBHs, etc. Thus, research concerning the properties of these objects and their possible connections with the properties of the Universe as a whole is very important. We therefore welcome contributions that address this topic. It is remarkable that the primordial universe and the interactions between elementary particles are subject to conservation laws and symmetries. As such, this Special Issue is dedicated to the exploration and investigation of theoretical, phenomenological, and observational effects that can leave important and detectable signatures, either discarding or favoring cosmological models that seek to elucidate the initial phases of the Universe's formation.

### Guest Editors

Prof. Dr. Paulo Custodio

Prof. Dr. Rodolfo Valentim

Prof. Dr. Marcio G. B. de Avellar

### Deadline for manuscript submissions

31 October 2026

**Symmetry**

**an Open Access Journal by MDPI**

**Impact Factor 2.2**
**CiteScore 5.3**

mdpi.com/si/227347

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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.

## Editor-in-Chief

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