

Special Issue

Symmetry and Asymmetry in Dark Energy and Dark Matter Models: Cosmological Implications

Message from the Guest Editor

Dear colleagues,

I'm excited to announce that I am the for a special issue of *Symmetry* (ISSN 2073-8994), focusing on the critical role that symmetry and asymmetry play in dark energy (DE) and dark matter (DM). These two components account for roughly 95% of the universe's mass energy and are key to explaining cosmic acceleration and large-scale structure formation.

Topics of Interest:

- Symmetry principles (e.g., Lorentz invariance, gauge symmetry) in DE and DM models
- Modified gravity theories (e.g., $f(T)$, $f(Q)$) and cosmic acceleration
- Observational constraints using Hubble data, Pantheon supernovae, BAO, CMB
- Theoretical and observational investigations into deviations from symmetry

We welcome contributions that combine theoretical models with observational data to enhance our understanding of DE and DM!

Guest Editor

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Deadline for manuscript submissions

closed (30 April 2025)



Symmetry

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CiteScore 5.3



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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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