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Modified Gravity Theories and Applications to Astrophysics and Cosmology

Guest Editors:

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Deadline for manuscript submissions:

closed (30 September 2023)

Message from the Guest Editors

The purpose of this Special Issue is to publish conventional and unconventional, but well-founded, approaches to the solution of these or any other new phenomena related to gravity. In particular, we are seeking papers in which new and original perspectives to these issues are provided as a way to stimulate the discussion in the astronomy and physics communities, in order to search for the solution of the riddle posed by many of these anomalies.

Topics of interest include (not exhaustively) the following:

Flyby anomalies

The secular increase of the eccentricity of the orbit of the moon

The faint young Sun paradox

Application of geopotential models for the Earth and other planets

Lunar laser ranging and radar ranging in the solar system

Conventional radiation effects in spacecraft navigation

Wide binaries as tests of classical gravity

Modified gravity models

Dark energy and cosmological accelerated expansion

Applications of gravity models to the anomalous rotation curves of galaxies

Bullet cluster and gravit tichal Gin Classue



solar system



Gravitational waves and tests of general relativity in strong gravity





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Editor-in-Chief

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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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