



universe



an Open Access Journal by MDPI

New Challenges in Modified Gravity at Cosmological and Astrophysical Scales

Guest Editors:

Dr. Daniele Vernieri

Dipartimento di Fisica “Ettore
Pancini”, Università degli Studi di
Napoli “Federico II”, Complesso
Universitario di Monte
Sant’Angelo, Via Cinthia, 21,
80126 Napoli, Italy

Prof. Dr. Salvatore Capozziello

Deadline for manuscript
submissions:

closed (10 April 2022)

Message from the Guest Editors

This Special Issue aims at collecting and exploring new work with regards to solving methods and analytical solutions in gravitation theory, with applications in astrophysics and cosmology.

Potential topics include, but are not limited to, the following:

- Symmetries in modified gravity (e.g., Lie and Noether symmetries)

- New exact and perturbative solving methods of the gravitational field equations

- Analytical solutions in astrophysical and cosmological background

- Conformal and disformal transformations connecting different theories of gravity

- Construction of theories with extra dynamical fields

- Dynamical systems approaches and methods in higher-order theories



mdpi.com/si/82113

Special Issue



universe



an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Lorenzo Iorio

Ministero dell'Istruzione e del Merito, Viale Unità di Italia 68, 70125 Bari, BA, Italy

Message from the Editor-in-Chief

The multidisciplinary *Universe* journal is aiming to follow and, hopefully, to lead to the largest extent as possible the ever-self renovating threads which weave mathematical theories with our understanding of the magnificent natural world. On behalf of all the distinguished members of the editorial board, I extend my welcome to this new journal and look forward to hearing from the interested contributors and learning about their valuable research.

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

Journal Rank: JCR - Q2 (*Astronomy & Astrophysics*) / CiteScore - Q2 (*General Physics and Astronomy*)

Contact Us

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

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

mdpi.com/journal/universe
universe@mdpi.com
[X@Universe_MDPI](https://twitter.com/Universe_MDPI)