

# Special Issue

## Spacetime Symmetry

### Message from the Guest Editors

As well known, symmetries in physics represent a useful and powerful tool to solve or simplify many physical problems, ranging from classical to quantum physics. For example, spacetime symmetries are essential for understanding, interpreting, classifying, and finding exact solutions in general relativity, or exploring possible formulations of quantum gravity. This Special Issue aims to collect papers representing both original research and reviews on recent progress on a broad range of arguments, from the use of spacetime symmetries in general relativity, modified and loop quantum gravity, string theory, non-commutative spacetimes, gauge theories, extensions of the standard particle model, and modular theory. It also includes, for example, issues related to the implementation or deformation of classical symmetries at a quantum level or the study of supertranslations for black hole physics. We would like to address these issues and arguments in this Special Issue. We thus invite our colleagues to submit their articles covering the above topics and arguments or related ones. All submitted articles, including review articles, should include clear purposes, results, and conclusions.

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### Guest Editors

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### Deadline for manuscript submissions

closed (10 December 2022)



## Universe

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## About the Journal

### Message from the Editor-in-Chief

The multidisciplinary journal *Universe* 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 Advisory and Editorial Boards, I extend my welcome to this journal and look forward to hearing from the interested contributors and learning about their valuable research.

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### Editor-in-Chief

Prof. Dr. Lorenzo Iorio  
Ministero dell' Istruzione e del Merito, Viale Unità di Italia 68, 70125 Bari,  
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