

## Special Issue

# Loop Quantum Gravity and Non-Perturbative Approaches to Quantum Cosmology

### Message from the Guest Editors

Quantum gravity research is experiencing a strong resurgence. Several approaches to unifying general relativity with quantum mechanics are proving fruitful and enlightening. They offer indications of properties of an underlying (or emerging) quantum gravity and cosmological implications. This special edition of *Universe* is devoted to recent developments in quantum cosmology and quantum gravity, with special focus on loop quantum gravity. All related articles are invited to be submitted for this Special Issue. Topics of interest for this Special Issue include, but are not limited to:

- quantum geometry, quantum gravity, and cosmological implications
- non-perturbative approach to quantum gravity (e.g., loop quantum gravity, group field theory, spin foam)
- string theory and string cosmology
- modified gravity
- emergent gravity

### Webiste:

[http://www.mdpi.com/journal/universe/special\\_issues/loop\\_quantum\\_gravity\\_cosmology](http://www.mdpi.com/journal/universe/special_issues/loop_quantum_gravity_cosmology)

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### Guest Editors

Prof. Dr. Mairi Sakellariadou

Prof. Dr. Gerald B. Cleaver

Prof. Dr. Etera Livine

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### Deadline for manuscript submissions

closed (28 February 2019)



## 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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