

# Special Issue

## Probing the Dark Universe with Theory and Observations

### Message from the Guest Editors

In the Special Issue “Probing the Dark Universe with Theory and Observations”, we would like to focus on “what exactly did we know about our universe in the last several decades?” We believe that the discussions in this direction are very relevant for the present time and will be extremely helpful for the next generation of research in the field of cosmology and astrophysics. It is our great pleasure to serve as the of this Special Issue and we invite our colleagues to submit their works to this Special Issue. In the following we give a series of topics on which we hope our colleagues will be greatly interested in.

- Cosmological constraints on (interacting/non-interacting) dark energy and modified gravity models from the latest observational data as well as from the future observational surveys.
- Constraining early universe models with observations
- Loop quantum cosmology, bouncing cosmologies
- N-body simulation.
- Variation of the fundamental constants and their effects on the cosmological parameters.

For detailed information of this special issue, please visit our [website](#).

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### Guest Editors

Dr. Supriya Pan

Prof. David Fonseca Mota

Dr. Weiqiang Yang

Dr. Jaime Haro Cases

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### Deadline for manuscript submissions

closed (30 November 2021)



## 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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