

# Special Issue

## Quantum Physics including Gravity: Highlights and Novelties

### Message from the Guest Editor

This Special Issue aims to provide a collection of both research papers and review papers on the fascinating problems of quantum physics including gravity, from quantum fields in curved space times to Planckian and trans-Planckian physics and quantum space-time, at the cutting edge of these domains and their most recent advances, whether being of foundational and conceptual nature or of implications and implementations; in cosmology, black holes, non-trivial vacua, topologies, and geometries, being within the known approaches and frameworks, or with new research avenues in these fields, as well as experimental and observational tests and results.

Topics include:

- Quantum fields and strings in curved space times, theory and applications.
- Quantum physics and black holes, semiclassical and quantum black holes.
- Quantum fields in cosmology, inflation and dark energy.
- Planckian and trans-Planckian physics.
- Quantum space-time.

---

### Guest Editor

Prof. Dr. Norma G. Sanchez  
CNRS. International School D. Chalonge—Hector de Vega, 75014 Paris, France

---

### Deadline for manuscript submissions

closed (30 June 2024)



## Universe

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.6  
CiteScore 5.2



[mdpi.com/si/136197](https://mdpi.com/si/136197)

*Universe*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[universe@mdpi.com](mailto:universe@mdpi.com)

[mdpi.com/journal/  
universe](https://mdpi.com/journal/universe)





# Universe

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.6  
CiteScore 5.2



[mdpi.com/journal/  
universe](https://mdpi.com/journal/universe)



## 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.

---

### Editor-in-Chief

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

---

### 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, CAPlus / SciFinder, Inspec, and other databases.

#### Journal Rank:

JCR - Q2 (Astronomy and Astrophysics) / CiteScore - Q2 (General Physics and Astronomy)