Special Issue

Exploring Low-Frequency Gravitational Wave Sources: Waveforms, Detection and Sciences

Message from the Guest Editors

Gravitational wave astronomy has been greatly developed since the first detection of gravitational waves in 2015. Various detection methods will realize multi-wavelength observation, including ground-based or space-borne interferometers and pulsar timing arrays. In particular, the latter two will open up a lowfrequency range for observing gravitational waves, that is, 10-10-100 Hz. They will enable us to study gravitational wave physics in the unexplored parameter space of strain and frequency, and then deepen our understanding of gravitational waves. In this Special Issue we will be focusing on low-frequency gravitational wave sources, waveform templates, data analysis, pipeline software development, and gravitational wave astronomy and physics like as astrophysical environment, tests of gravity theories, cosmology, black hole physics and so on. The study of these and other related topics are the goal of this special issue, [...] For further reading, please follow the link to the Special Issue Website.

Guest Editors

Prof. Dr. Wenbiao Han

Prof. Dr. Ziren Luo

Dr. Shucheng Yang

Deadline for manuscript submissions

31 December 2025



Universe

an Open Access Journal by MDPI

Impact Factor 2.6 CiteScore 5.2



mdpi.com/si/203369

Universe
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
universe@mdpi.com

mdpi.com/journal/ universe





Universe

an Open Access Journal by MDPI

Impact Factor 2.6 CiteScore 5.2



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)

