

Special Issue

Gamma-Ray Bursts: Unveiling the Mysteries of the Universe's Most Powerful Explosions

Message from the Guest Editors

Gamma-ray bursts (GRBs) are among the most violent explosive phenomena in the universe, releasing enormous amounts of energy in gamma-rays in a very short time period. Although a basic picture has been established for both long and short GRBs, many issues still remain unsolved, including the classification of GRBs, the connection with star formation rate, the composition and launching mechanism of ultra-relativistic outflows, the event rates at all redshift ranges, the usage of GRBs in cosmology, multiwavelength properties, central engines and their prolonged activities, the connection between GRBs and other transients such as supernovae and gravitational wave bursts and fast radio bursts, and radiation mechanisms in the prompt burst phase and at the afterglow stage. In this Special Issue, we will collect high-quality contributions from all over the world involving various unsolved aspects of GRBs, including observational and theoretical progress, as well as the development of instrumentation techniques. Both research papers and review articles are welcome.

Guest Editors

Prof. Dr. Yongfeng Huang

Prof. Dr. He Gao

Prof. Dr. Liang Li

Dr. Jinjun Geng

Deadline for manuscript submissions

31 July 2026



Universe

an Open Access Journal
by MDPI

Impact Factor 2.6
CiteScore 5.0



mdpi.com/si/232080

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

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





Universe

an Open Access Journal
by MDPI

Impact Factor 2.6
CiteScore 5.0



[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, CAPIus / SciFinder, Inspec, and other databases.

Journal Rank:

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