Special Issue

Current Status of the Hubble Tension

Message from the Guest Editors

In the age of precision cosmology, advancements in measuring the Hubble Tension have been remarkable. However, over the past decade, a notable disparity has arisen between the values obtained using the Planck Satellite and those predicted via Type Ia supernovae analysis from the SH0ES Collaboration. This five-sigma inconsistency, termed “Hubble Tension” has garnered significant attention due to the unexpected correlation between the Hubble constant and the redshift of the source used for its determination. Various explanations, ranging from astrophysical phenomena like redshift evolution to conjectures about new physics in the evolution of the Universe, have been proposed. This Special Issue aims to offer a comprehensive overview of the Hubble Tension, encompassing both data analysis and theoretical models aimed towards resolving it. Central to this collection is the exploration of model testing, crucial for identifying the most promising theoretical avenues. Manuscripts in the form of letters, regular articles, and topical reviews are encouraged, covering diverse aspects of this Special Issue theme.

Guest Editors

Prof. Dr. Giovanni Montani

1. ENEA, Fusion and Nuclear Safety Department, C.R. Frascati, Via E. Fermi 45, 00044 Frascati, Italy
2. Physics Department, “Sapienza” University of Rome, P.le Aldo Moro 5, 00185 Roma, Italy

Dr. Eleonora Di Valentino

School of Mathematics and Statistics, University of Sheffield, Hounsfield Road, Sheffield S3 7RH, UK

Dr. Nakia Carlevaro

ENEA Centro Ricerche Frascati, Frascati, Italy

Deadline for manuscript submissions

31 December 2025

Universe

an Open Access Journal by MDPI

Impact Factor 2.6
CiteScore 5.2

mdpi.com/si/205783

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

mdpi.com/journal/universe

MDPI

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)