



universe

an Open Access Journal by MDPI



H_0 Tension: Observational Status, Theoretical Models, and the Road Ahead

Guest Editor:

**Prof. Dr. Leandros
Perivolaropoulos**

Department of Physics, University
of Ioannina, 45110 Ioannina,
Greece

Deadline for manuscript
submissions:

closed (31 July 2021)

Message from the Guest Editor

Dear Colleagues,

The discrepancy in the value of the Hubble parameter H_0 as obtained from Planck Cosmic Microwave Background (CMB)–Baryon Acoustic Oscillation (BAO) data ($H_0 = 67.4 \pm 0.5 \text{ km s}^{-1} \text{ Mpc}^{-1}$) and various independent local measurements ($H_0 = 74.03 \pm 1.42 \text{ km s}^{-1} \text{ Mpc}^{-1}$) has reached a level close to 6σ and constitutes a major issue for modern cosmology, challenging the validity of the standard Λ CDM model. Replacing the Cepheid-based local distance ladder calibration by a Tip of the Red Giant Branch-calibration for Type Ia SNe has led to an intermediate value of H_0 , which is about 1.2σ away from the Planck/CMB value and 1.7σ , 1.3σ , 1.2σ from SH0ES, H0LiCOW, and Megamaser Cosmology Project, respectively.

We invite short or longer contributions from the leaders of this research subject on both the observational and the theoretical aspects. For more information, please visit: mdpi.com/si/50114.

Prof. Dr. Leandros Perivolaropoulos

Guest Editor



mdpi.com/si/50114

Special Issue



universe



an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Lorenzo Iorio

Ministero dell'Istruzione e del
Merito, Viale Unità di Italia 68,
70125 Bari, BA, Italy

Message from the Editor-in-Chief

The multidisciplinary *Universe* journal 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 editorial board, I extend my welcome to this new journal and look forward to hearing from the interested contributors and learning about their valuable research.

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 & Astrophysics*) / CiteScore - Q2 (*General Physics and Astronomy*)

Contact Us

Universe Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/universe
universe@mdpi.com
X@Universe_MDPI