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Cosmic Microwave Background

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closed (30 November 2023)

Message from the Guest Editors

Dear Colleagues,

In the past three decades, measurements of temperature and polarization anisotropies of the cosmic microwave background (CMB) have played a key role in the development of precision cosmology and our understanding of the early universe. The B-mode polarization of CMB is considered to be the unique probe of primordial gravitational waves on cosmological scales, the "smoking gun" of the inflationary paradigm. CMB secondary anisotropies correlated with the late-universe large scale structures are potentially a very powerful probe that helps to reveal the nature of the dark components of the universe. CMB spectral distortion contains information about energy injection in the early universe, which places bounds on the primordial abundance of supermassive black holes and other energy sources.

This Special Issue will collect contributions on the challenges, cutting-edge progresses, and future prospects of CMB science. The aim is to invite scientists all over the world to discuss and share their new ideas on how to utilize CMB to explore the physical cosmos. All original contributions are welcome.

Prof. Dr. Zhiqi Huang
Prof. Dr. Pedro Avelino
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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.

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