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Quantum Models for Cosmology

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Deadline for manuscript
submissions:

closed (15 February 2022)

Message from the Guest Editors

The Special Issue is aimed at collecting contributions on all aspects of quantum cosmology, including singularity resolutions, problem of time, semiclassical descriptions, methods of quantization of cosmological models, and quantum cosmological alternatives to inflationary models.

We wish to invite both original and review papers to this Special Issue, which particularly emphasize ideas and problems of frameworks based on background independent quantum cosmology. We believe that such frameworks have a potential to explain the initial conditions as well as the origin of the expansion in the Universe without inevitably postulating fine-tuned primordial fields. We are interested in collecting contributions on a broad range of approaches and ideas which emphasize the quantum nature of the primordial universe and related issues, like time problem in quantum gravity.

Keywords: quantum cosmology; singularity resolutions; problem of time; semiclassical descriptions; quantization methods; alternatives to inflationary models



mdpi.com/si/25038

Special Issue



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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.

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