Mathematical Cosmology

Guest Editor:

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closed (30 November 2023)

Message from the Guest Editor

A cosmological spacetime is usually a manifold and a metric together with a fundamental time-like vector field; however, chaotic, topologically nontrivial, non-Hausdorff, and even acausal models do arise and are considered. Furthermore, purely mathematical questions like those pertaining to genericity and stability of the models and their intrinsic features arise in both classical and quantum-related theories.

This Special Issue is a place to share your mathematical work on cosmological spacetimes and their intrinsic global features. Studies of new exact solutions in Einstein gravity or alternative theories are welcome as well as quantum extensions. Physically interesting analyses of the structure and features of cosmological spacetimes is also welcome. In particular, studies of the rarer types of global features or unusual cosmological milestones such as sudden singularities or big rips would also appropriate. Finally, any mathematical analyses that may shed light on the genericness or stability of these cosmological spacetimes is welcome, […]

For further reading, please follow the link to the Special Issue Website.

Special Issue

Editor-in-Chief

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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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