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# Advances in Loop Quantum Cosmology

Guest Editor:

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Deadline for manuscript submissions:
**closed (30 September 2021)**

## Message from the Guest Editor

Dear Colleagues,

You are cordially invited to submit papers to the Special Issue of "Advances in Loop Quantum Cosmology", which focuses on comprehending the pre-inflationary cosmological era, which is believed to be governed by quantum gravity (QG).

Loop quantum gravity (LQG) is a background independent, non-perturbative approach aimed at unifying general relativity (GR) and quantum physics. Loop quantum cosmology (LQC) is the application of LQG to cosmological settings. This new paradigm has provided some remarkable insights on QG, and has allowed for a systematic exploration of the very early Universe.

The scope of this Special Issue is to highlight recent developments on conceptual issues of LQC as well as the resulting phenomenological implications.

Today, LQC can successfully face many of the long-standing problems of QG. New effects, originating from Planck-scale physics, can resolve the initial singularity of GR, while ensuring an agreement with Einstein's theory at a low curvature. Clearly, the LQC framework has already been advanced sufficiently in order to meet phenomenology and observations.

Prof. Kostas Kleidis
*Guest Editor*

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## Message from the Editorial Board

*Galaxies* provides an advanced forum for studies related to astronomy, astrophysics, and cosmology, including all of their subfields. Different formats, such as specialized research articles, reviews, communications and technical notes are welcomed. Manuscripts containing original and creative research proposals and ideas are especially appreciated.

We encourage scientists to publish their astronomical observations and theoretical results in as much detail as possible. There is no restriction on the paper length and full experimental and methodological details, as applicable, should be provided. All papers will be peer reviewed promptly. On behalf of the distinguished members of the editorial board, I extend my welcome to all researchers working on these subjects to contribute to *Galaxies*.

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