

CANCELLED - Phenomenology of Modified Loop Quantum Cosmological Models

Friday 10 May 2024 10:50 (40 minutes)

In recent years, new progress has been made in the direction of the alternative loop cosmological models as compared with standard loop quantum cosmology (LQC). These modified loop quantum cosmological (mLQC) models arise from different quantization prescriptions of the classical Hamiltonian constraint in loop quantum gravity (LQG) for a spatially-flat Friedmann-Lemaître-Robertson-Walker (FLRW) universe. In this talk, I will focus on the phenomenology of two of the mLQC models, namely mLQC-I and mLQC-II. The former is also called Dapor-Liegener model in the literature. In particular, I will first summarize the main properties of the background evolution of the mLQC-I/II universes and then concentrate on the results of the primordial power spectra in these two models. Finally, I will address the potential issues which are still to be resolved in these models.

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