

Tachyon Logamediate Inflation on DGP Braneworld Gravity

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Inflation as the intersection of cosmology and high energy physics will be studied in this manuscript. Among many inflationary models we consider the one with a logarithmic scale factor, called logamediate inflation. On the other hand, the idea of extra dimensions in cosmology is closely related to high energy physics and here, we are interested in studying the logamediate inflationary paradigm in the context of a special extra dimensional theory proposed by Dvali, Gabadadze and Porrati (DGP), in which our 4D universe is assumed to be a brane embedded in a 5D infinite Minkowski bulk. To drive inflation we use a tachyon scalar field as the inflaton field. After the reconstruction of the tachyonic potential and calculating the slow-roll parameters, we turn to perturbation theory and constrain our model parameters using new observational data. then we will show this model can be compatible with the latest observational data.

Secondary track (number)

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