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Inflationary scenario in Starobinski-Palatini FLRW cosmology

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We review some recent results concerning inflationary scenario in the framework of Starobinski-Palatini FLRW cosmology, which can be reduced to the two-dimensional singular (piecewise-smooth) dynamical system of Newtonian type. Therefore, it can be describe in geometric terms of the corresponding potential function. Analytical calculations are given for the case with dust matter and cosmological constant. We investigate the model in both Jordan and Einstein frames. We demonstrate that after transition to the Einstein frame we obtain both decaying Lambda and the form of a scalar field potential. In particular, we discuss slow-roll parameters, graceful exit and confront the model against observational data.

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