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Title:	Stability of a Viable Non-Minimal Bounce.
Authors:	Nandi, Debottam (/jspui/browse?type=author&value=Nandi%2C+Debottam)
Keywords:	modified gravity stability non-minimal coupling attrarctor
Issue Date:	2021
Publisher:	MDPI
Citation:	Universe, 7(3).
Abstract:	The main difficulties in constructing a viable early Universe bouncing model are: to bypass the observational and theoretical no-go theorem, to construct a stable non-singular bouncing phase, and perhaps, the major concern of it is to construct a stable attractor solution which can evade the Belinsky–Khalatnikov–Lifshitz (BKL) instability as well. In this article, in the homogeneous and isotropic background, we extensively study the stability analysis of the recently proposed viable non-minimal bouncing theory in the presence of an additional barotropic fluid and show that, the bouncing solution remains stable and can evade BKL instability for a wide range of the model parameter. We provide the expressions that explain the behavior of the Universe in the vicinity of the required fixed point i.e., the bouncing solution and compare our results with the minimal theory and show that ekpyrosis is the most stable solution in any scenario.
Description:	Only IISER Mohali authors are available in the record
URI:	https://doi.org/10.3390/universe7030062 (https://doi.org/10.3390/universe7030062) http://hdl.handle.net/123456789/4548 (http://hdl.handle.net/123456789/4548)
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