

Mimicking alternatives to inflation with interacting spectator fields

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It has been argued that oscillatory features from spectator fields in the primordial power spectrum could be a probe of alternatives to inflation. In view of the future prospects for detecting oscillatory signals in the Cosmic Microwave Background, it is important to clarify whether those associated with alternative scenarios could be mimicked by non-trivially interacting spectator fields in an inflationary setting. In this talk, I show that the frequency and amplitude dependence of the patterns appearing in alternatives can be mimicked by field interactions during inflation. Therefore, the claim that oscillatory features in the primordial power spectrum can be used to distinguish between inflation and alternatives is softened. The degeneracy of the frequency holds for the n -point correlation functions, while the degeneracy of the amplitude is broken at the level of non-gaussianities.

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