Signature of Particle Production during Inflation

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Abstract

We show that such energy release alters the duration of inflation and affects the spectrum of the curvature perturbations. We study whether
enhancement of the scalar modes can be so strong that it translates into an observable background of stochastic gravitational waves. We perform numerical calculations for benchmark models and compare them to the sensitivities of the upcoming detectors.

Keywords: Cosmology, Particle Production

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