

JOINT TUFTS/MIT COSMOLOGY SEMINAR

Preheating in Axion Inflation Models

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I will discuss the end stages of inflation in axion inflation models coupled to gauge fields, with special attention on axion monodromy inflation. Gauge field quanta are copiously produced during preheating, and this sources an entropy perturbation. This in turn induces a growing mode for the primordial curvature perturbation on large scales, with a spectrum that is deeply blue. I will discuss the observational constraints on such a spectrum, and the model dependence of the result. I will close with a discussion of future directions for constraining stringy physics from the post-inflationary universe. This talk is based on arXiv:1601.07749 [hep-th].

Tuesday, April 12, 2016, 2:30 pm
Cosman Seminar Room
Center for Theoretical Physics
Building 6C, Room 6C-442
Massachusetts Institute of Technology

Refreshments at 2:00 in the same room