

# JOINT TUFTS/MIT COSMOLOGY SEMINAR

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## *Dissipation during inflation*

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I will discuss phenomena associated with particle production and field excitation during inflation. In the first part of the talk I will present several signatures both at large - CMB - and small - gravitational wave (GW) interferometer - scale, that can originate from the coupling of an axion inflaton to gauge fields. In the second part I will test the robustness of the standard implications associated with the detection of a GW signal at CMB scales, by discussing what conditions can allow a visible sourced GW background that exceeds the vacuum one (without simultaneously overproduce scalar perturbations), and by providing a concrete example. In the final part I will review the phenomenology of trapped inflation, which is an interesting and minimal mechanism where particle production provides the main friction for the motion of the inflaton.

Tuesday, February 28, 2017, 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