

JOINT TUFTS/MIT COSMOLOGY SEMINAR

Non-Gaussianity in rapid-turn multi-field inflation

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Primordial non-Gaussianity is a powerful tool to discriminate between models of inflation by probing the dynamics and field content of the very early Universe. In this talk, I will show that theories of inflation with multiple, rapidly turning fields can generate large, potentially observable amounts of non-Gaussianity. I will discuss a novel, analytical formula for bispectrum generated from multi-field mixing on super-horizon scales for a general theory with two fields, an arbitrary field-space metric and potential. I will explain why the detection of local non-Gaussianity with an amplitude of order one would rule out all attractor models of single-field inflation and discuss what would such detection tell us about multiple-field inflation.

Tuesday, February 13, 2024, 2:30 pm

Zoom link will be distributed to joint cosmology seminar mailing list. See <https://cosmos.phy.tufts.edu/mailman/listinfo/cosmology-seminar> to join.

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