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Non-Gaussianity as a Particle Detector

Tuesday, 20 June 2017 15:30 (15 minutes)

Cosmological correlation functions encode the spectrum of particles during inflation, in analogy to scattering amplitudes in colliders. In this talk, I will discuss the imprints of massive particles with arbitrary spin on cosmological correlators. The spinning case is particularly interesting because the detection of massive higher-spin particles would be strongly indicative of a stringy origin of inflation. I will describe their key spectroscopic features in the scalar and tensor bispectra, and discuss scenarios in which they lead to observable non-Gaussianity.

Presentation type

Parallel talk

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