

Séminaire de physique des particules et de cosmologie

Mardi 26/11/2019, 16:00-17:00

Orme des Merisiers Salle Claude Itzykson, Bât. 774

The Likelihood for Large-Scale Structure

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I derive, using the effective field theory of biased tracers, the conditional likelihood for observing a specific tracer field given an underlying matter field. This likelihood is necessary for Bayesian-inference methods. I start from the assumption of Gaussian noise for the tracer field, and then discuss the impact of non-Gaussian noise (which includes the stochastic corrections to the tracer bispectrum) and of higher-derivative terms. I comment on how these corrections can affect the results of current applications of Bayesian inference. I also comment on possible extensions, with a particular eye towards the inclusion of primordial non-Gaussianity.
