



Contribution ID: 72

Type: **not specified**

The $1/N$ expansion for stochastic fields in de Sitter spacetime

Friday 11 December 2020 12:00 (20 minutes)

We propose a $1/N$ expansion of Starobinsky and Yokoyama's effective stochastic approach for light quantum fields on superhorizon scales in de Sitter spacetime. We explicitly compute the spectrum and the eigenfunctions of the Fokker-Planck operator for a $O(N)$ -symmetric theory with quartic selfinteraction at leading and next-to-leading orders in this expansion. We obtain simple analytical expressions valid in various nonperturbative regimes in terms of the interaction coupling constant.

Primary author: MOREAU, Gabriel (Université de Montpellier)

Presenter: MOREAU, Gabriel (Université de Montpellier)

Session Classification: Contributed talks