

Looping with combinatorics

Monday 28 October 2024 14:00 (45 minutes)

Understanding the loop corrections to cosmological observables can have both phenomenological and theoretical implication: on the one hand, the coupling between the inflaton and fermions first appears at one-loop, and on the other hand they allow to have control on the quantum consistency of a theory in an expanding universe as well as to get a better handle on aspects of the framework underlying our current description of the primordial universe, i.e. quantum field theory in curved space-times. In this talk, I will provide an overview on recent progress on a general approach to understanding of the asymptotic behaviour of the cosmological observables as well as of their one loop corrections, based on the combinatorial features of a special integral representations for the perturbative contributions to cosmological observables.

Primary author: BENINCASA, Paolo

Presenter: BENINCASA, Paolo