

Theory Lunch Seminar

Understanding the large-scale structure of the Universe

Distribution of matter on super-galactic scales encodes a wealth of information about the constituents of our Universe, its evolution and initial conditions. An efficient extraction of this information requires accurate analytic and numerical methods to capture the non-linear dynamics of gravitational clustering starting from stochastic primordial density inhomogeneities. I will describe an approach based on path integral representation for the cosmological observables and will illustrate in a number of applications how it allows us to systematically improve the precision of theoretical predictions. I will also briefly discuss the generalisation of these techniques to search for new physics beyond the standard cosmological model.



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Tuesday March 19th 2019 at 12:15

Auditoire CUB III, room BSP 233, (Cubotron), EPFL