

# Amin Nassiri-Rad: Stochastic non-attractor inflation

*Monday, November 9, 2020 4:00 PM (45 minutes)*

We extend the formalism of stochastic inflation to the setup of non-attractor inflation with a sound speed  $c_s$ . We obtain the Langevin equations for the superhorizon perturbations and calculate the stochastic corrections to curvature perturbation power spectrum. It is shown that the fractional stochastic corrections in mean number of e-folds and power spectrum are at the order of power spectrum. We also calculate the boundary crossing and the first hitting probabilities in a hypothetical dS space with two boundaries in field space. Furthermore, the stochastic corrections in power spectrum in a setup akin to eternal inflation with large diffusion term are calculated.