## NEHOP'25 - New Horizons in Primordial Black Hole Physics



Contribution ID: 21

Type: not specified

## Stochastic inflation beyond slow roll

Monday 19 May 2025 09:20 (30 minutes)

Stochastic inflation offers a non-perturbative framework with which to calculate the distribution of density perturbations and in particular large, but rare fluctuations in the non-Gaussian tail of the distribution that could give rise to primordial black holes. Strongly enhanced density perturbations from single-field inflation require deviations from slow roll, and there are a number of challenges, and conflicting claims, when applying the stochastic formalism beyond the familiar slow roll setting. I will discuss issues including modelling non-adiabatic perturbations on super-Hubble scales and the compare the classical and stochastic delta-N formalisms used to calculate density perturbations.

Author: WANDS, David

Presenter: WANDS, David

Session Classification: PBHs from inflation