## QURS Days 2025



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## Non-Gaussianities in ultra slow-roll inflation

Thursday 20 February 2025 16:00 (30 minutes)

A phase of ultra slow-roll during inflation, characterized by a transient decrease in the inflaton field velocity, is known to generate large curvature perturbations on small scales that could later seed the formation of a significant population of primordial black holes. In this talk, we discuss how non-Gaussianities can arise from the non-linear relation between curvature perturbations and inflaton fluctuations and from the intrinsic non-Gaussianities of the latter, which stem from its self interactions. We discuss a numerical approach to estimate the impact of such non-Gaussianities on the tail of the probability distribution function of curvature perturbations.

Primary author:PIERRE, Mathias (T (Phenomenology))Presenter:PIERRE, Mathias (T (Phenomenology))Session Classification:Plenary Session