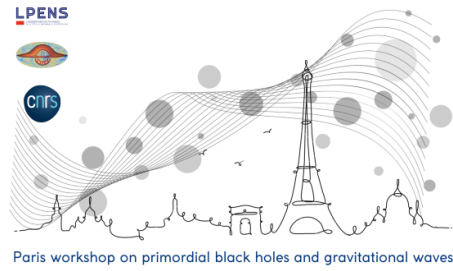


## Paris workshop on primordial black holes and gravitational waves



Contribution ID: 12

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### Back-reaction in the early universe

*Monday 27 November 2023 16:45 (20 minutes)*

Single-field models of inflation that feature a non-attractor phase might lead to enhanced scalar fluctuation on scales much smaller than those seeding large-scale structure formation. In this scenario, it is possible that the spike of power at high wavenumber might spoil the successful predictions of a nearly Gaussian, scale-invariant power on large scales, e.g. in the form of loop corrections to the large-scale power spectrum. In this talk we discuss analytical estimates for the 1-loop correction, derived by applying the  $\delta N$  formalism. To clarify how our results relate with the existing literature, we make an explicit connection to results obtained by employing the in-in formalism.

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