

Back-reaction in the early universe

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Single-field models of inflation that feature a non-attractor phase might lead to enhanced scalar fluctuation on scales much smaller than those seeding the 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. We employ the δN formalism, and relate our results to those obtained in the literature by applying the in-in formalism.

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