

## Talk: Analysis of the generalized Starobinsky inflationary model

*Monday 14 August 2023 09:20 (40 minutes)*

In this work we solved the equation of scalar and tensor perturbations for the generalized Starobinsky inflationary model using the improved uniform approximation method and the phase-integral method up to third-order in deviation. We compare our results with the numerical integration. We have obtained that both semiclassical methods reproduce the scalar power spectra  $P$ , the scalar spectral index  $n_S$ , and the tensor-to-scalar ratio  $r$ . Also we present our results in the  $(n_S, r)$  plane.

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