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Type: **Parallel talk**

On the robustness of renormalized Higgs inflation

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I will discuss the cosmological consequences of higher-dimensional operators respecting the asymptotic symmetries of the tree-level Higgs inflation action. The main contribution of these operators to the renormalization group enhanced potential is localized in a compact field range, whose upper limit is close to the end of inflation. The spectrum of primordial fluctuations in the so-called universal regime turns out to be almost insensitive to radiative corrections and in excellent agreement with the latest Planck/BICEP2 results. However, higher-dimensional operators can play an important role in critical Higgs inflation scenarios containing a quasi-inflection point along the inflationary trajectory. The interplay of radiative corrections with this quasi-inflection point may translate into a sizable modification of the inflationary observables.

Presentation type

Parallel talk

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