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# Higgs inflation model with non-minimal coupling in hybrid Palatini approach

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In this paper, we construct a hybrid metric Palatini approach in which the Palatini scalar curvature is non minimally coupled to the scalar field. We derive the Einstein's field equations, the equations of motion of the scalar field. Furthermore, the background and the perturbative parameters are obtained by means of Friedmann equations in the slow roll regime. The analysis of cosmological perturbations allowed us to obtain the main inflationary parameters such as the scalar spectral index  $n_s$  and the tensor to scalar ratio  $r$ . In this perspective, as an application of our analysis, we consider the Higgs field with quartic potential which plays the inflaton role, and we show that predictions of Higgs hybrid inflation are in good agreement with the recent observational data.

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