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## Probing extended Starobinsky inflation with CMB and 21cm intensity mapping (15+5)

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The Starobinsky inflation where the general relativity is extended by  $R^2$  term is one of bestfit model to Planck data. Higher order modification to Starobinsky model with  $R^3$  term is of great interest since it may be induced by quantum gravity effects. In this article we

study the potential of future CMB experiments LiteBIRD and CMB stage four (CMB-S4) and 21cm intensity mapping by Square Kilometre Array (SKA) to probe Starobinsky model extended by R3 term. Such an extend model would provide intriguing insight about inflationary dynamics.

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