

Calculation, arXiv:1502.05193

Does Current Data Prefer a Non-minimally Coupled Inflaton?

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- **Aim** : Understand the impact of a non-minimal coupling of the inflaton to the Ricci scalar, $\frac{1}{2}\xi R\phi^2$, on the inflationary predictions.
- **Study** : Focusing on the simplest inflationary model governed by the potential $V \propto \phi^2$
- **Data** : Planck and BICEP2/Keck Array 2015
- **Result** : Presence of a coupling ξ is favoured at a significance of 99% CL, $\xi \neq 0 \rightarrow 2\sigma$ level. Cross-correlation polarization spectra from BICEP2/Keck array and Planck, $r = 0.038^{+0.039}_{-0.030}$.