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## Inflation from radion gauge-Higgs potential at Planck scale

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We study whether the inflation is realized based on the radion gauge-Higgs potential obtained from the one-loop calculation in the 5-dimensional gravity coupled to a  $U(1)$  gauge theory.

We show that the gauge-Higgs can give rise to inflation in accord with the astrophysical data and the radion plays a role in fixing the values of physical parameters.

We clarify the reason why the radion dominated inflation and the hybrid inflation cannot occur in our framework.

Based on arXiv:1504.06905[hep-ph].

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