Contribution ID: **1**   Type: **not specified**

Emergence of inflaton potential from asymptotically safe gravity

Tuesday, 10 September 2024 15:15 (25 minutes)

Asymptotic safety is a powerful mechanism for obtaining a consistent and predictive quantum field theory beyond the realm of perturbation theory. It hinges on an interacting fixed point of the Wilsonian renormalization group flow, which controls the microscopic dynamics. Connecting the fixed point to observations requires constructing the set of effective actions compatible with this microscopic dynamics. In this talk, I will describe how to make this connection at the level of a four-dimensional scalar-tensor theory. As a result, I will show how single-field inflationary models, compatible with observations, naturally emerge from a gravitational UV fixed point. The talk is based on arXiv:2403.08541.

Primary author: SILVA, Agustín (Radboud University)

Presenter: SILVA, Agustín (Radboud University)