Contribution ID: 58

Type: not specified

Goldstone bosons in Higgs inflation

Higgs inflation uses the gauge variant Higgs field as the inflaton. During inflation the Higgs field is displaced from its minimum, which results in associated Goldstone bosons that are apparently massive. Working in a minimally coupled U(1) toy model, we use the closed-time-path formalism to show that these Goldstone bosons do contribute to the one-loop effective action. Therefore the computation in unitary gauge gives incorrect results. Our expression for the effective action is gauge invariant upon using the background equations of motion.

Primary author: Mr MOOIJ, Sander (Nikhef Amsterdam)Co-author: Dr POSTMA, Marieke (Nikhef Amsterdam)Presenter: Mr MOOIJ, Sander (Nikhef Amsterdam)