Contribution ID: **63** Type: **not specified**

# Higgs-Dilaton Cosmology: an effective field theory approach

*Tuesday 21 May 2013 17:00 (15 minutes)*

The Higgs-Dilaton cosmological model describes simultaneously an inflationary period in the early Universe and a dark energy dominated stage responsible for the present day acceleration. The common origin of both processes gives rise to a non-trivial relation between the spectral tilt of scalar perturbations and the dark energy equation of state. We study the self-consistency of this model from an effective field theory point of view. Taking into account the influence of the dynamical background fields, we determine the effective cut-off of the theory, which turns out to be parametrically larger than all the relevant energy scales from inflation to the present epoch. We finally formulate the set of assumptions needed to estimate the amplitude of the quantum corrections in a systematic way and show that the connection between the early and late universe observables remains unchanged if these conditions are satisfied.

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**Session Classification:** Parallel Session on Cosmology