Contribution ID: 24

Type: not specified

Primordial black holes from Higgs inflation?

Monday 27 May 2019 16:45 (15 minutes)

Primordial black holes are a possible form of dark matter. In principle, they can be formed from strong perturbations seeded by cosmic inflation. Such strong perturbations can be produced in Higgs inflation, where the Standard Model Higgs field coupled non-minimally to gravity is the inflaton, if quantum corrections produce a critical point into the Higgs effective potential. In this talk I explore this possibility and contrast it to observational bounds on cosmic microwave background radiation and black hole abundance.

Authors: TOMBERG, Eemeli (University of Helsinki); RÄSÄNEN, Syksy (University of Helsinki) Presenter: TOMBERG, Eemeli (University of Helsinki)