



Universidad del País Vasco
Euskal Herriko Unibertsitatea
The University of the Basque Country

Seminarios de Física Teórica Fisika Teorikoa: Hitzaldiak

Inflation and high-energy physics: some counter-intuitive effects

Diego Chialva

University of Mons

Abstract The relation between inflation and high-energy physics has two quite opposite facets. On the one hand the accelerated expansion of the universe would shield us from the traces of higher-energy physics by virtue of effects such as dilution and redshift. On the other hand the accelerated expansion appears to depend on specific features of the fields' energy-momentum tensor and/or the ranges of field values: a high-energy dependence countered by equipping inflationary models with certain protection mechanisms.

In this talk we will argue how both these arguments are challenged once one carefully takes into account the embedding of inflation in a fundamental theory, which will be treated in very general terms. In particular we will focus on two aspects: signatures in primordial observables and effects on the dynamics of inflation.

Seminar Room, Dept. of Theoretical Physics, Corridor 4.-2.

THURSDAY, March 5th, 2015

Time:11:40 am