



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

Seminarios de Física Teórica
Fisika Teorikoa: Hitzaldiak

Hypermagnetic Fields and Baryon Asymmetry from Pseudoscalar Inflation

Eray Sabancilar

EPFL, Lausanne, Switzerland

Abstract I will show that maximally helical magnetic fields produced during pseudoscalar inflation leads to generation of baryon asymmetry via the chiral anomaly in the Standard Model. In these so called natural inflation models, the observed baryon asymmetry of the Universe can be achieved for some range of the parameter values. However, most of the parameter space that explains the cosmological data leads to baryon overproduction, hence severely constraining the natural inflation models.

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

Wednesday, Nov. 25th, 2015

Time: 11:40 am