

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

Seminarios de Física Teórica Fisika Teorikoa: Hitzaldiak

Large Field Inflation in String Theory

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DESY

Abstract The possibility of Inflation being large single field motivates the embedding of the Effective Field Theories describing it in a UV completion where the validity of the EFT is trustable. A very natural candidate for such a UV theory is String Theory, the framework where we will present some models of inflation. These models will be based on axion monodromy inflation, a scenario that nowadays seems to be the best one for string inflation. Moreover, in order to build single field models, it is necessary to create hierarchies between moduli masses, such that the inflaton is effectively the only light scalar at inflation. In the models presented, these hierarchies are achieved by using warped throats, which are geometries allowing for a String Theory generalisation of the Randall and Sundrum idea. Through the talk we will construct warped throats for a couple of axion monodromy scenarios, and then use them to address some issues in each scenario.

Prof. A. Chamorro Seminar Room, Dept. of Theoretical Physics, Corridor 4.-2. Wednesday, Feb. 22nd, 2017 Time:11:40 am