



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

Seminarios de Física Teórica Fisika Teorikoa: Hitzaldiak

de Sitter Vacua, Inflation and the Swampland

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Abstract Not all the effective field theories (EFTs) coupled to gravity admit a UV completion in String Theory. This indicates that quantum gravity constraints can affect the physics at lower, naively decoupled, energies. What can we then say about EFTs of dS vacua and inflation? Do they belong to the Swampland or to the Landscape?

In this talk, we focus on specific aspects of this question. First, we critically analyse recent arguments which suggest that flattening effects prevent the formation of de Sitter vacua. We show that at the 4d level this is never the case, both in the KKLT and in the KL scenario, and that both structures remain fully compatible with the Weak Gravity Conjecture. Secondly, we discuss the significance for inflation of the Swampland Distance Conjecture, a proposal for a quantum gravity constraint acting at infinite distances.

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

Wednesday, March 13th, 2019

Time: 11:40 am