

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

Seminarios de Física Teórica Fisika Teorikoa: Hitzaldiak

Slow-roll inflation and the Swampland

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Abstract In this talk, we show how the swampland conjecture, which has recently been attracting attention in string theory and gravity theory, relates to the slow-roll condition of inflation. First, we will briefly explain the reason why we focus on the swampland conjecture to investigate the dynamics of inflation. Next, we discuss the behavior of the scalar field describing the evolution of the inflationary scenario from the viewpoint of the swampland conjecture. Finally, we present the implications of energy conditions on cosmological compactification solutions of the higher-dimensional Einstein field equations, and show the relation between the slow-roll condition in the inflationary scenario and the swampland criterion.

Prof. A. Chamorro Seminar Room, Dept. of Theoretical Physics Wednesday, Feb. 19th, 2020 Time:10:40 am