SEMINARIO
Departamentos de Física Teórica I y II
Universidad Complutense de Madrid

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TITULO: B->K* l+l- a portal for New Physics?

LUGAR: FACULTAD DE CIENCIAS FÍSICAS UCM
DÍA: 13 de noviembre, 2013 (Miércoles)
HORA: 14:30
AULA: Seminario Depto. Física Teórica II, Planta 2ª

ABSTRACT

In this talk we will motivate the description of the 4-body decay distribution B->K*(->Kpi) mu+mu- in terms of a basis of primary observables, so called Pi(') that exhibits a suppressed soft form factor dependence at large-recoil and an enhanced New Physics sensitivity. We will present an updated analysis of the new LHCb data on this mode, focusing on the interpretation of the sizable deviation found in P5' in terms of a large and negative New Physics contribution to the Wilson coefficient of the semileptonic operator O9. We will argue that a set of other smaller tensions seems to be consistent with the same interpretation. We will discuss the robustness tests performed, in particular, on charm pollution. We will also comment on other analysis done in the literature and on the future discovery capabilities of P4' and P1 concerning C10 and the chirally flipped C_{7,9,10}'.