



Contribution ID: 52

Type: **not specified**

Taming the ϵ_K in Little Randall Sundrum Models

Friday 27 August 2021 10:10 (20 minutes)

The Randall Sundrum (RS) models receive significant constraints from the neutral Kaon system. The CP violating observable ϵ_K , in Randall Sundrum scenario, requires the lightest KK gluon to be heavier than ~ 24 TeV. The constraint is even stronger in the Little Randall Sundrum models (LRS), ~ 32 TeV. The LRS models are motivated for their possible visibility at the Large Hardon Collider (LHC). We show that the stringent constraints from K-physics can be relaxed in the LRS models, in the presence of the Brane Localised Kinetic Terms (BLKT). In particular, for a range of values, a UV BLKT could significantly modify the lightest KK gluon wave function such that the limit can reduce to 5 TeV. We also show that such a relaxation of the constraints can also be achieved by imposing flavour symmetries *à la* Minimal Flavour Protection.

Authors: D'AMBROSIO, Giancarlo; Dr THOMAS, Mathew (IISER, Trivandrum); Mr KUSHWAHA, Ashwani (Indian Institute of Science); VEMPATI, Sudhir Kumar (Centre for High Energy Physics, Indian Institute of Science)

Presenter: Dr THOMAS, Mathew (IISER, Trivandrum)

Session Classification: Flavor Physics and CP Violation

Track Classification: Flavor Physics and CP Violation