

Theory Seminar

Monday, September 28, 2009 2:10 PM 831 Pupin Hall



Collider and flavor phenomenology in the scalar sector of Warped Extra Dimensions

I will review and present new results on the phenomenology of the expected two lightest scalars in the context of warped extra dimensions, the Higgs and the radion. This last one, could be the lightest "new physics" state to be discovered at the LHC in this type of models. Its phenomenology is very similar to the Standard Model (SM) Higgs, with which it can actually mix. When SM fields are allowed to live in the bulk of the extra dimension, new interesting effects appear in the scalar sector of the model. In particular, both the Higgs and the radion can now typically mediate Flavor Changing Neutral Currents at tree level. These will impose bounds on the flavor structure of the model, but also allow for interesting probes in current and future collider experiments.



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