



Theory Seminar

Monday, May 5, 2008 2:10 PM 831 Pupin Hall



The Little Randall-Sundrum Model at the LHC

We present a predictive warped model of flavor that is cut off at an ultraviolet scale of order 1000 TeV. This "Little Randall-Sundrum (LRS)" model is a volume-truncation, by a factor $y \sim 6$, of the RS scenario and is holographically dual to dynamics with number of colors larger by y . The LRS couplings between Kaluza-Klein states and the Standard Model fields are explicitly calculable. Assuming separate gauge and flavor dynamics, a number of unwanted contributions to precision electroweak, $Z b \bar{b}$, and flavor observables are suppressed in the LRS framework, compared with the RS counterparts. An important consequence of the LRS truncation, independent of precise details, is a significant enhancement of the clean (golden) dilepton LHC signals, by order y^3 , due to a larger "rho-photon" mixing and a smaller inter-composite coupling.

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