Supersymmetry 2011 (SUSY11)



Contribution ID: 399

Type: not specified

Heavy Top Quark Production in the Bestest Little Higgs Model at the LHC

Tuesday, 30 August 2011 11:45 (25 minutes)

Traditional Little Higgs models suffer from two generic problems. The first is that it is difficult to generate a Higgs quartic coupling without violating custodial symmetry and the second is the existence of finetuning in the top sector. These problems are solved in the Bestest Little Higgs model, which is based on an SO(6)xSO(6)/SO(6) coset space with a built-in custodial symmetry. A distinctive feature of this model is the existence of several top quark partners that are considerably lighter than in other Little Higgs models without T-Parity, leading to a more interesting collider phenomenology. In this talk, I explore the possibility that these top partners can be produced and discovered at the LHC.

Presenter: MOATS, Kenneth (Carleton University)

Session Classification: Parallel Session 5