

double charged scalars of littlest higgs model in ee colliders

Little higgs models, as a result of extended symmetry group of S.M contain heavy scalars in their content of particles. In the littlest Higgs model of little Higgs models there exists a new heavy scalar triplet. The physical states of this triplet contains a double charged scalar, a single charged scalar, as well as a neutral scalar and a neutral pseudoscalar. In little higgs models a majorana type mass term can also be implemented in yukawa lagrangian, resulting lepton flavour violation.

In this work the pair production of double charged scalars in the context of littlest higgs model in ee colliders is studied. Also the final signatures of double charged scalars are investigated depending on lepton flavour violation parameters. Finally it is seen that if there is lepton flavour violation double charged scalars can be observed without any SM background in ee colliders with a collider signal of four leptons, otherwise if there is no lepton flavour violation they can be reconstructed with a background analysis.

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