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## Lepton number violating signatures with Left-Right Symmetry at LHC through doubly charged scalars

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The Left Right Symmetric Model (LRSM) presents a very promising beyond standard model scenario with a rich scalar sector. The minimal version has additional triplet and bidoublet scalar fields resulting in doubly charged, singly charged and neutral scalar particles in the physical spectrum. The doubly-charged scalars provide a distinct phenomenology compared to many other multi-Higgs models and are capable of producing signatures with both lepton number violation (LNV) and lepton flavor violation (LFV). We investigate the production and further decay of  $H_{L/R}^{++}$  at the LHC. With the left handed triplet acquiring a non-zero vev ( $v_L$ ), we consider all the LNV processes in LRSM. Our preliminary studies find that, by suitably adjusting different parameters like  $v_L$ , Yukawa couplings between triplet scalars and leptons etc. of the model, it is possible to enhance the cross-section of LNV processes keeping them within the reach of high luminosity LHC while satisfying existing constraints on the parameters from neutrino mass and low energy LNV-LFV processes.

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