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## Search for a heavy neutrino and right-handed W of the left-right symmetric model in pp collisions

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We describe the search for signals from the production of right-handed W bosons and heavy neutrinos  $N_l$  ( $l = e, \mu$ ), that arise naturally in the left-right symmetric extension to the standard model, using 5 1/fb of collision data collected by the CMS Experiment at the LHC in 2011 at  $\sqrt{s} = 7$  TeV and 3.6 1/fb of 2012 collision data at  $\sqrt{s} = 8$  TeV. No excess over expectations from standard model processes is observed. For models with exact left-right symmetry, and assuming either  $N_e$  or  $N_\mu$  is the only right-handed neutrino accessible at LHC energies, we exclude the region in the two-dimensional parameter  $(M_{W_R}, M_N)$  space that extends beyond  $M_{W_R} = 2.5$  TeV.

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