

Abstract Submitted  
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**Search for electroweak production of supersymmetric particles in final states containing hadronic decays of WW, WZ, or WH and missing transverse momentum** ANKUSH REDDY KANUGANTI, Baylor University — Results are presented from a search for chargino-neutralino or chargino pair production via electroweak interactions. The results are based on a sample of  $\sqrt{s} = 13TeV$  proton-proton collisions from the LHC, recorded with the CMS detector and corresponding to an integrated luminosity of  $137 fb^{-1}$ . The search considers final states with large missing transverse momentum and pairs of hadronically decaying bosons WW, WZ, and WH, which are identified using novel algorithms. No significant excess of events is observed relative to the expectation from the standard model. Limits at the 95% confidence level are placed on the cross-section for production of mass-degenerate wino-like superpartners of SU(2) gauge bosons,  $\tilde{\chi}_1^\pm/\tilde{\chi}_2^0$ . In the limit of nearly-massless neutralinos  $\tilde{\chi}_1^0, \tilde{\chi}_1^\pm/\tilde{\chi}_2^0$  with masses up to 870 and 960 GeV are excluded in the cases of  $\tilde{\chi}_2^0 \rightarrow Z\tilde{\chi}_1^0$  and  $\tilde{\chi}_2^0 \rightarrow H\tilde{\chi}_1^0$ , respectively. Interpretations for other models are also presented.

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