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Optimization of the search for three jet resonances in proton-proton collisions at $\sqrt{s} = 8$ TeV JULIA GONSKI, EVA HALKIADAKIS, CLAUDIA SEITZ, Rutgers Univ, CMS COLLABORATION[1] — An analysis of the search for stealth supersymmetry (SUSY) in three b jet decay and minimal missing E_T signatures is presented. Data from proton-proton collisions produced at the LHC and collected with the CMS detector during the 2012 run is used, corresponding to an integrated luminosity of 19.4 fb^{-1}. Though the search is model independent, optimization is performed assuming sbottom pair production decaying to three b jets and missing E_T with an intermediary stealth particle. Given the high multiplicity of b jets in the final state, examining signal significance for different numbers of b tags per event can yield a more efficient selection. Preliminary results are shown assuming this stealth SUSY scenario.

[1]On behalf of the CMS Collaboration.

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