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Search for supersymmetry using events with three leptons, multiple jets, and missing transverse momentum in 8 TeV proton-proton collision data with the ATLAS detector CHEN ZHOU, Duke University, ATLAS COLLABORATION — We describe a search for new physics using events with three leptons, multiple jets, and missing transverse momentum. The search utilizes proton-proton collisions at 8 TeV recorded by the ATLAS detector at the Large Hadron Collider. The recorded dataset corresponds to an integrated luminosity of 13 fb^{-1}. The rates and kinematic distributions of the observed data are found to be in agreement with Standard Model expectations. Therefore, limits for the production cross-sections are established for two simplified supersymmetry models. The first model is pair production of gluinos that decay into top squarks and quarks. The second model is pair production of bottom squarks decaying into top quarks and charginos.

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