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**Search for Monotop Production in Semi-Leptonic Decays of Top Quarks at $\sqrt{s} = 8$ TeV Using the ATLAS Detector** ANDREW CHEGWIDDEN, Michigan State University, ATLAS COLLABORATION — This beyond the Standard Model search looks for events where single top quarks are produced in association with missing transverse energy. This missing transverse energy can be attributed to a neutral, long lived or stable, non-interacting particle which could be considered a dark matter candidate. The final state topology can either be created via baryon number violating or flavor changing neutral current interactions. Data collected at a center-of-mass energy of 8 TeV during 2012 corresponding to an integrated luminosity of 20.3 fb$^{-1}$ are used. The current search results will be presented along with future plans for the analysis.

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