## Abstract Submitted for the TSF06 Meeting of The American Physical Society

SUSY Studies with ATLAS Experiment NURCAN OZTURK, Univ. of Texas at Arlington, ATLAS COLLABORATION — The Large Hadron Collider (LHC) is a 14-TeV proton-proton collider which is scheduled to start taking data in 2007 at CERN in Switzerland. The ATLAS experiment at the LHC will search for Supersymmetry (SUSY) which is one of the most attractive extensions of the Standard Model. SUSY discovery potential of the ATLAS experiment within the mSUGRA framework is presented. Recent studies using full simulation of the detector to measure properties of SUSY particles are discussed. Data Challenge activities that aim to provide simulated data to optimize the detector and to validate the ATLAS Computing Model will be described.

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