Abstract Submitted
for the APR14 Meeting of
The American Physical Society

Search for Supersymmetry in Diphoton Events with Large Missing Transverse Momentum in 8 TeV pp collisions with the ATLAS Detector BENJAMIN AUERBACH, Argonne National Laboratory — We describe a search for physics processes beyond the standard model using events with two photons and large missing transverse energy. The search analyzes 20.3 fb^{-1} of data taken with pp collisions at $\sqrt{s} = 8$ TeV by the ATLAS experiment at the Large Hadron Collider. The search for new physics considers two different production modes, electroweak and strong, as well as lower and higher mass binos which yield different kinematic distributions. The rates and kinematic distributions are found to be consistent with Standard Model expectations, and limits are set on possible new physics scenarios with the final state of two photons and missing transverse energy.

Benjamin Auerbach
Argonne National Laboratory

Date submitted: 06 Jan 2014 Electronic form version 1.4