

Abstract Submitted
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Prospects for Black Hole discovery at ATLAS in the Graviton + X Final State LAURA DODD, Duke University — The ATLAS detector is a general purpose experiment currently recording 7 TeV proton collisions at the Large Hadron Collider (LHC). Some theoretical models predict that LHC collisions can produce microscopic black holes which would decay into gravitons and other particles. We have simulated $p + p$ production of black holes with different model parameters, and investigated the experiment's sensitivity to black hole decays with a graviton in the final state. In this talk, I will discuss studies to optimize the black hole signal significance.

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