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Black Holes versus Supersymmetry at the LHC ARUNAVA ROY, MARCO CAVAGLIA, The University of Mississippi — Supersymmetry and extra dimensions are the two most promising candidates for new physics at the TeV scale. Supersymmetric particles or extra-dimensional effects could soon be observed at the Large Hadron Collider. In this paper we assess the distinguishability of supersymmetry and black hole events at the LHC. Black hole events are simulated with the CATFISH black hole generator. Supersymmetry simulations use a combination of PYTHIA and ISAJET, the latter providing the mass spectrum. Our analysis shows that supersymmetry and black hole events at the Large Hadron Collider can be easily discriminated.

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