



Contribution ID: 89

Type: talk

Search for SUSY in tau final states at ATLAS

Tuesday, 18 December 2012 15:25 (20 minutes)

Supersymmetry (SUSY) is a theoretically attractive model of particle physics which solves many of the theoretical problems of the Standard Model. An important one of these, dark matter, is solved in SUSY by the production of new stable, weakly interacting particles. With the unprecedented energy and luminosity of the Large Hadron Collider (LHC) large regions of the SUSY parameter space may be investigated and new heavy and rare particles can be searched for. A search for Supersymmetry with tau leptons in the final state, using data collected in 2011 at the ATLAS detector at the LHC will be presented. A combined search including final states with missing energy, jets, light leptons and at least one tau (one tau, two tau, tau+e and tau+mu) has been carried out. The results are used to set limits on the visible cross section of new physics processes and producing exclusion limits on a specific SUSY model (GMSB).

Primary author: Mr DALE, Ørjan (University of Bergen)

Presenter: Mr DALE, Ørjan (University of Bergen)

Session Classification: Dark Matter and Supersymmetry, LHC

Track Classification: Preliminary version of material to be approved