LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS (LEPP)

Journal Club

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SUSY Hunting: New ATLAS Results from Searches at 13 TeV

After Run 1 of the LHC, supersymmetry still stands as an attractive solution to the hierarchy problem and other open questions in particle physics. Models featuring strongly interacting supersymmetric particles— gluinos and squarks— are particularly compelling at Run 2 of the LHC, where the increased center-of-mass energy leads to dramatically improved sensitivity. Highlights of ATLAS's broad program of SUSY searches is presented, with a particular focus on searches for models with gluinos and light third-generation superpartners. New analysis techniques, including the use of event-level substructure observables, significantly increase the strength of the searches, but no evidence for new physics is found. Related searches with high jet multiplicity, particularly in the context of R-parity violating models, are also discussed.

Friday, Nov. 11, 2016

SPECIAL TIME !

4:00pm

301 Physical Sciences Bldg.