



Contribution ID: 247

Type: Talk

【407】 Search for direct top squark pair production in final states with two leptons in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector

Friday 25 August 2017 12:45 (15 minutes)

Naturalness arguments for weak-scale supersymmetry favour relatively light third generation squarks, which are expected to be abundantly accessible at the LHC energies. Results of a search for the light supersymmetric top with the full 2015-2016 ATLAS dataset (36.1 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$) is presented. The search is focused on direct production of top-squark in events with two leptons of opposite charge, jets and missing transverse energy. Four possible decay modes of the top squark are targeted with dedicated selections. Since no excess is observed above the Standard Model background predictions for any selection, the results have been used to constrain the SUSY parameter space, extending significantly the previous results.

Primary author: RIMOLDI, Marco (Universitaet Bern (CH))

Presenter: RIMOLDI, Marco (Universitaet Bern (CH))

Session Classification: Nuclear, Particle-and Astrophysics (TASK-FAKT)

Track Classification: Nuclear, Particle- and Astrophysics (TASK - FAKT)