



Contribution ID: 508

Type: Poster Presentation

Search for long-lived, massive particles in events with displaced vertices and missing transverse momentum in $\sqrt{s}=13$ TeV pp collisions with the ATLAS detector

A search for long-lived, massive particles, as generically predicted by many theories beyond the Standard Model, is presented. The search targets final states with large missing transverse momentum and at least one high-mass displaced vertex with five or more tracks, and used 32.7 fb^{-1} of $\sqrt{s}=13$ TeV pp collision data collected by the ATLAS detector at the LHC. The observed yield is consistent with the expected background. The results are used to extract 95% CL exclusion limits on the production of long-lived gluinos with masses up to 2.2 TeV in a simplified model inspired by Split Supersymmetry.

Experimental Collaboration

ATLAS

Primary author: ROZEN, Yoram (Technion (IL))**Presenter:** OTONO, Hidetoshi (Kyushu University (JP))**Session Classification:** Poster session**Track Classification:** Higgs and New Physics