

# Searches for Physics beyond the SM in Monojets and Monophotons events with the ATLAS detector

*Tuesday, 4 December 2012 14:30 (30 minutes)*

There are various models for physics beyond the standard model that predict event signatures with large missing transverse energy due to invisible new particles. Such events can be identified in the detector if they are accompanied by an energetic photon or a jet with high transverse energy. The main contributions to the standard model background are production of Z and W bosons together with a jet or a photon, where the Z decays into 2 neutrinos or where the decay lepton from the W is not identified.

This talk presents results from searches for new physics with both signatures with the ATLAS detector at the LHC. The focus will be on the analyses using the full 2011 data set at a center of mass energy of  $\sqrt{s}=7\text{TeV}$  but also include updates with data recorded in 2012 at  $\sqrt{s}=8\text{TeV}$ . The results are translated into exclusion limits on parameters of different theoretical models.

## Presentation Type

Slides

**Primary author:** Ms PÖTTGEN, Ruth (CERN)

**Presenter:** Ms PÖTTGEN, Ruth (CERN)

**Session Classification:** Parallel Session IV: BSM, SUSY, Exotics