

## Prospects for R-Parity Conserving SUSY searches at the LHC

*Thursday 16 July 2009 09:55 (20 minutes)*

The talk will review the current strategies to search for generic SUSY models with R-parity conservation in the ATLAS and CMS detectors at the LHC. The discovery reach in early data will be presented for the different search channels based on missing transverse momentum from undetected neutralinos and multiple jets. The talk will also describe the search for models of gauge-mediated supersymmetry breaking for which the NLSP is a neutralino decaying to a photon and a gravitino. In this scenario, the search strategy exploits the distinct signature of a non-pointing photon. Finally, we will present recent work on techniques used to reconstruct the decays of SUSY particles at the LHC in early data, based on the selection of final-state exclusive decay chains.

**Primary author:** Dr GENEST, Marie-Helene (Ludwig-Maximilians-Universität München)

**Presenter:** Dr GENEST, Marie-Helene (Ludwig-Maximilians-Universität München)

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