



Contribution ID: 429

Type: **not specified**

## **Fitting Mixed Modulus-Anomaly Mediated SUSY Breaking and distinguishing from the CMSSM at the LHC**

*Tuesday, August 30, 2011 2:30 PM (20 minutes)*

If SUSY is discovered at the LHC, the task will immediately turn to trying to determine the model of SUSY breaking. We take a Mixed Modulus-Anomaly Mediated SUSY Breaking (MMAMSB) model with very similar LHC phenomenology to the more conventionally studied CMSSM. We then study whether the models can be distinguished and measured. If we only fit to the various mass edges and mass end-points from cascade decay chains that are normally studied, a unique determination of the model is problematic without substantial amounts of LHC data. However, if event rate information is included, we can quickly distinguish and measure the correct SUSY model.

**Presenter:** Dr TATTERSALL, Jamie (Bonn University)

**Session Classification:** Parallel Session 6