

## **The quest for SUSY: The ATLAS point of view**

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The Standard Model of particle physics does a remarkable job in describing the elementary particles and their interactions. However it cannot answer all questions, for example it does not provide a dark matter candidate. Thus it is clear, that a theory beyond the Standard Model is necessary. One of the most favored theories is Supersymmetry, since it has very appealing properties. SUSY can provide a dark matter candidate, solve the hierarchy problem and unify the gauge couplings. New particles, supersymmetric partners of the Standard Model particles, are predicted, that could be observed in an experiment.

The ATLAS experiment at CERN's proton proton collider LHC provides a very good environment to search for these new particles. Observing these SUSY particles, but also ruling out Supersymmetry, would both be a major breakthrough in particle physics. To ensure that Supersymmetry is not missed, if it is realised in nature, a vast amount of different channels focusing on various production and decay chains are studied by the ATLAS experiment. Besides the presentation of some of these latest results from SUSY searches based on 2011 data the talk will also give some insights how these analyses are carried out.