

## Constraining SUSY models beyond vanilla supersymmetry at the LHC

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ATLAS and CMS collaborations have searched for multi-jet plus large missing energy signatures and their null results have put a stringent constraint on the CMSSM parameter space. Such “vanilla” supersymmetry with squark/gluino mass below 1-1.4 TeV have already excluded. However in some scenarios, for example split generation, compressed SUSY and R-parity violation scenarios, low energy supersymmetry below 1 TeV is still allowed. Excluding such possibilities would be one of the next important goals of the LHC. I would like to talk about our recent study to exclude the compressed SUSY models using leptonic signatures. I would also like to mention our recent work on RPV model exclusion using a large jet multiplicity search.

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