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Gluino decay in natural supersymmetry

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Natural supersymmetric spectra require light Higgsinos, light stops and sbottom to achieve the correct electroweak symmetry breaking without a fine tuning. Furthermore, taking into account two loop contribution to the Higgs mass squared term, gluino would not be very heavy. We study the gluino decay signal in natural supersymmetric spectra at the LHC. It would be different from simplified models and we also discuss the difficult signal to search at the LHC considering R-parity breaking terms.

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