

SUSY-QCD corrections to squark production at LHC in the MSSM with general flavour mixing

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Already at tree-level the theoretical prediction for the cross section of $PP \rightarrow \tilde{q}_i \tilde{q}_i^*$, $\tilde{q} = \tilde{u}, \tilde{d}; i = 1, \dots, 6$, can have a strong dependence on squark flavour mixing parameters. Such a case is not taken into account in any published LHC study up to now. As a logical next step we calculate the leading one-loop corrections to that processes, namely the SUSY-QCD corrections with gluon and gluino loops. This study is still ongoing and we will report on the actual status.

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