

Phenomenology 2019 Symposium



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Increasing the Discovery Potential Using Rare SUSY Scenarios Part I: Gluinos

Monday 6 May 2019 16:30 (15 minutes)

We consider the HL-LHC discovery potential in the 3 inverse ab data set for gluinos in the gluino-weakino associated production channel. We propose a search in the jets plus missing energy channel which exploits kinematic edge features in the reconstructed transverse mass of the gluino. We find that for squark masses in the 2 TeV range we have 5 sigma discovery potential for gluino masses in the range of 2.4 to 3 TeV, competitive with the projections for discovery potential in the gluino pair production channel.

Summary

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