

Abstract Submitted
for the APR20 Meeting of
The American Physical Society

Projections of Top Quark Spin Correlations to 14TeV and 3 ab-1

AMANDEEP SINGH BAKSHI, ANDREAS JUNG, Purdue Univ, CMS COLLABORATION — This presentation presents a study that examines the CMS experiment's final prospects for exploring the degenerate corridor of top squark and neutralino masses. The sensitivity study employs Monte Carlo samples that simulate conditions at the High Luminosity Large Hadron Collider, i.e. a 14 TeV center of mass energy and 200 pile up conditions, corresponding to an integrated luminosity of 3 ab⁻¹. Working with dilepton events, we analyze the $\Delta\varphi_{ll}$ variable, the difference in azimuthal angle φ between the two decay leptons in the laboratory frame, to set limits on the stop decay cross-sections.

Amandeep Singh Bakshi
Purdue Univ

Date submitted: 10 Jan 2020

Electronic form version 1.4