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CMS Detector Sensitivity for the Discovery of Supersymmetry in the Same-Sign Dimuons with Jets and Missing Transverse Energy YURI PAKHOTIN, University of Florida, CMS COLLABORATION — Preparations are underway to search for possible signatures of Supersymmetry (SUSY) or other possible extensions of Standard Model (SM) in the inclusive topology involving same-sign dimuon final state, using the Compact Muon Solenoid (CMS) experiment at the Large Hadron Collider. This talk reports on the expected performance of CMS, based on full detector simulation, and studies of its effect on SUSY discovery potential. Strategy for reducing SM background, both from the online CMS trigger and from offline data analysis is presented.

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