

Abstract Submitted  
for the SES05 Meeting of  
The American Physical Society

**Sensitivity of the CMS detector to detecting Supersymmetry in the same sign di-muon signature** YURIY PAKHOTIN, University of Florida  
— The possibility of discovering Supersymmetry (SUSY) with the CMS detector by studying the same-sign di-muon signature in the final state is analyzed. Full simulation and reconstruction of the SUSY signal events (generated in the mSUGRA model) and of the Standard Model (SM) background is performed. The expected CMS Muon system performance is discussed. It is shown that an excess of SUSY events over SM background is significant in a large area of mSUGRA parameter space even at low integrated luminosity.

Yuriy Pakhotin  
University of Florida

Date submitted: 05 Aug 2005

Electronic form version 1.4