

Abstract Submitted
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CMS Detector Sensitivity to the Standard Model Higgs Boson in $H \rightarrow ZZ \rightarrow 4\mu$ Decay Channel ALEXEI DROZDETSKI, D. ACOSTA, P. BARTALINI, R. CAVANAUGH, A. KORYTOV, G. MITSELMAKHER, B. SCURLOCK, YU. PAKHOTIN, University of Florida, M. ALDAYA, P. ARCE, J. CABALLERO, B. CRUZ, P. GARCIA, J. HERNANDEZ, I. JOSA, E.R. MORALES, CIEMAT, Madrid, Spain, A. SHERSTNEV, Cavendish Laboratory, University of Cambridge, UK, S. ABDULLIN, FNAL, CMS COLLABORATION — Presented are the results of the analysis of the CMS detector sensitivity to the Standard Model Higgs boson in its 4-muon decay channel, $H \rightarrow ZZ \rightarrow 4\mu$, in the Higgs boson mass range from 115-600 GeV. The studies are based on the most recent full CMS detector simulation and mimic the real data analysis with the most critical calibrations extracted from “data” and all systematic uncertainties explicitly evaluated and taken into account.

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