

Abstract Submitted
for the APR13 Meeting of
The American Physical Society

Results on the new boson discovered in the search for the standard model Higgs boson in the $H \rightarrow ZZ \rightarrow 4\ell$ channel in pp collisions at $\sqrt{s} = 7$ and 8 TeV at CMS CHRISTOPHER BLAKE MARTIN, Johns Hopkins University, CMS COLLABORATION — Measurements of the properties of the new boson recently observed near a mass of 125 GeV in the CMS experiment are presented. These results are obtained from a search for the standard model Higgs boson in the $H \rightarrow ZZ$ decay channel, where both Z 's decay to e , μ , or τ lepton pairs. The analysis uses data collected by the CMS detector at the LHC, corresponding to integrated luminosities of 5.1 fb^{-1} at $\sqrt{s} = 7 \text{ TeV}$ and 19.5 fb^{-1} at $\sqrt{s} = 8 \text{ TeV}$. The properties measured include the production rate, mass, and spin-parity.

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Date submitted: 11 Jan 2013

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