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## Search for a heavy pseudoscalar boson decaying to a Z and a Higgs boson at root s=13TeV

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### Abstract

A search is presented for a heavy pseudoscalar boson A decaying to a Z boson and a Higgs boson with mass of 125 GeV. In the final state considered, the Higgs boson decays to a bottom quark and antiquark, and the Z boson decays either into a pair of electrons, muons, or neutrinos. The analysis is performed using a data sample corresponding to an integrated luminosity of 35.9 fb<sup>-1</sup> collected in 2016 by the CMS experiment at the LHC from proton-proton collisions at a center-of-mass energy of 13 Te. The data are found to be consistent with the background expectations. Exclusion limits are set in the context of two-Higgs-doublet models in the A boson mass range between 225 and 1000.

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