

# Search for Zgamma resonances using leptonic and hadronic final states in proton-proton collisions at 13 TeV with the CMS experiment

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A search for Zgamma resonances using leptonic and hadronic final states is presented. The analysis is based on data from proton-proton collisions at a center-of-mass energy of 13 TeV, corresponding to an integrated luminosity of 35.9 /fb, and collected with the CMS detector at the LHC in 2016. The search strategy is to look for an excess above the non-resonant Standard Model background on the Zgamma invariant mass spectrum. Leptonic and hadronic decay modes of the Z boson are investigated and the results are combined and interpreted in terms of upper limits on the product of the production cross section and the branching fraction to Zgamma.

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