

# Search for a light charged Higgs boson decaying to a W boson and a CP-odd Higgs boson in trilepton final states in pp collisions at 13 TeV with CMS

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A search for a light charged Higgs boson ( $H^\pm$ ) decaying to a W boson and a CP-odd Higgs boson (A) using trilepton final states (electron-dimuon or trimuon) is presented. The result is based on data from pp collisions at 13 TeV, recorded by the CMS detector, corresponding to an integrated luminosity of 35.9 /fb. In this search, it is assumed that the  $H^\pm$  boson is produced in decays of top quarks, and the A boson decays to two oppositely charged muons. The first upper limits are set on the combined branching fraction for the decay chain.

## Secondary track (number)

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