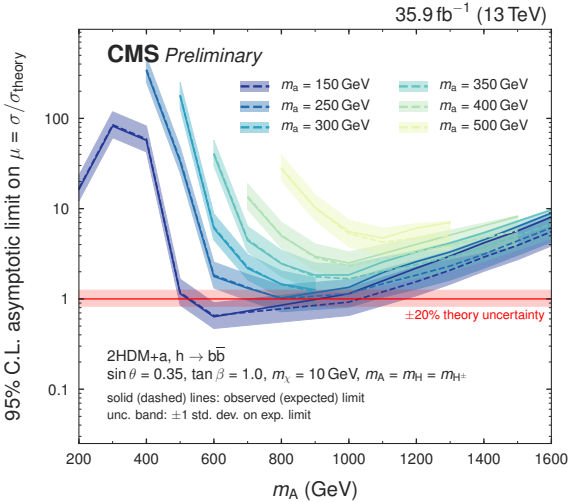
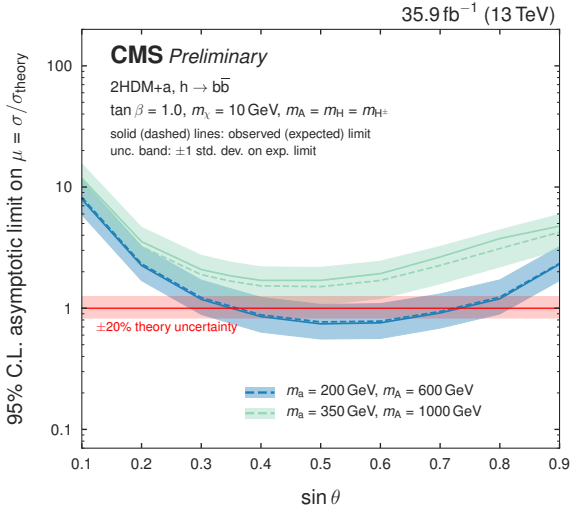
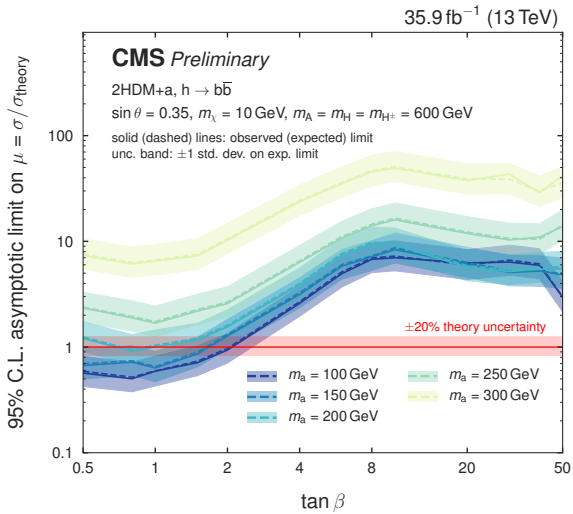

35.9 fb^{-1} (13 TeV)
CMS Preliminary
m_a = 150 GeV
m_a = 250 GeV
m_a = 300 GeV
m_a = 350 GeV
m_a = 400 GeV
m_a = 500 GeV
±20% theory uncertainty
2HDM+a, h → bb̄
sin θ = 0.35, tan β = 1.0, m_χ = 10 GeV, m_A = m_H = $m_{H^\pm}$
solid (dashed) lines: observed (expected) limit
unc. band: ±1 std. dev. on exp. limit
95% C.L. asymptotic limit on $\mu = \sigma/\sigma_{theory}$
m_A (GeV)


35.9 fb^{-1} (13 TeV)
CMS Preliminary
2HDM+a, h → bb̄
tan β = 1.0, m_χ = 10 GeV, m_A = m_H = $m_{H^\pm}$
solid (dashed) lines: observed (expected) limit
unc. band: ±1 std. dev. on exp. limit
±20% theory uncertainty
m_a = 200 GeV, m_A = 600 GeV
m_a = 350 GeV, m_A = 1000 GeV
95% C.L. asymptotic limit on $\mu = \sigma/\sigma_{theory}$
sin θ


35.9 fb^{-1} (13 TeV)
CMS Preliminary
2HDM+a, h → bb̄
sin θ = 0.35, m_χ = 10 GeV, m_A = m_H = $m_{H^\pm}$ = 600 GeV
solid (dashed) lines: observed (expected) limit
unc. band: ±1 std. dev. on exp. limit
±20% theory uncertainty
m_a = 100 GeV
m_a = 150 GeV
m_a = 200 GeV
m_a = 250 GeV
m_a = 300 GeV
95% C.L. asymptotic limit on $\mu = \sigma/\sigma_{theory}$
tan β