

35.9 fb⁻¹ (13 TeV)

CMS Preliminary

Z'-2HDM, Dirac DM

$g_Z = 0.8, g_\chi = 1$

$m_\chi = 100$ GeV

$\tan\beta = 1$

$m_A = m_{H^\pm} = m_H$

m_A [GeV]

DM + h(bb + $\gamma\gamma$ + $\tau\tau$ + WW + ZZ)

— Observed 95% CL

— Expected 95% CL

⋯ Obs. $\pm 1\sigma_{\text{theory}}$

⋯ Exp. $\pm 1\sigma_{\text{experiment}}$

- - - Exp. $\pm 2\sigma_{\text{experiment}}$

$\sigma/\sigma_{\text{theory}}$

10²

10

1

10⁻¹

10⁻²

1000

900

800

700

600

500

400

500

1000

1500

2000

2500

3000

3500

4000

$m_{Z'}$ [GeV]

