

2.3 fb⁻¹ (13 TeV)

CMS

$Z' \rightarrow \text{DM} + H(2\text{HDM})$

$M_{A^0} = 300 \text{ GeV}, M_\chi = 100 \text{ GeV}$



CL_S Observed



CL_S Expected $\pm 1\sigma$



CL_S Expected $\pm 2\sigma$



$\sigma_{\text{TH}'}, g_z \leq 0.03 \times \frac{g_W}{\cos\theta_W \times \sin^2\beta} \times \frac{\sqrt{M_{Z'}^2 - M_Z^2}}{M_Z}$



$\sigma_{\text{TH}'}, g_z = 0.8$

$H \rightarrow \gamma\gamma$

$H \rightarrow b\bar{b}$

