

2.3 fb<sup>-1</sup> (13 TeV)**CMS** $Z' \rightarrow \text{DM} + h(2\text{HDM})$  $m_A = 300 \text{ GeV}, m_\chi = 100 \text{ GeV}$ —■—  $\text{CL}_S$  Observed—  $\text{CL}_S$  Expected  $\pm 1$  st. dev.—  $\text{CL}_S$  Expected  $\pm 2$  st. dev.-·-·-  $\sigma_{\text{th}}, g_{Z'} = 0.8$ - - -  $\sigma_{\text{th}}, g_{Z'} = 0.03 \times \frac{g_W}{\cos\theta_W \times \sin^2\beta} \times \frac{\sqrt{m_{Z'}^2 - m_Z^2}}{m_Z}$   
 $h \rightarrow \gamma\gamma$  $h \rightarrow b\bar{b}$ 