

2.3 fb⁻¹ (13 TeV)**CMS** $Z' \rightarrow \text{DM} + h(2\text{HDM})$ $m_A = 300 \text{ GeV}, m_\chi = 100 \text{ GeV}$ CL_S ObservedCL_S Expected ± 1 st. dev.CL_S Expected ± 2 st. dev. $\sigma_{\text{th}}, g_{Z'} = 0.03 \times \frac{g_W}{\cos\theta_W \times \sin^2\beta} \times \frac{\sqrt{m_{Z'}^2 - m_Z^2}}{m_Z}$  $\sigma_{\text{th}}, g_{Z'} = 0.8$ $h \rightarrow \gamma\gamma$ $h \rightarrow b\bar{b}$ 