

Events / 75 GeV

 $\sqrt{s} = 13 \text{ TeV}, 139 \text{ fb}^{-1}$ $\tau_{\text{had}}\tau_{\text{had}}$

Signal Region

--- $X (m_X = 300 \text{ GeV}) \times 50$ --- $X (m_X = 500 \text{ GeV}) \times 10$ --- $X (m_X = 1000 \text{ GeV}) \times 5$ $\sigma(X \rightarrow \text{HH}) = 1 \text{ pb}$

● Data

— SM HH $\times 400$

Top-quark

Jet $\rightarrow \tau_{\text{had}}$ fakes (MJ)Z $\rightarrow \tau\tau + (\text{bb}, \text{bc}, \text{cc})$ Jet $\rightarrow \tau_{\text{had}}$ fakes ($t\bar{t}$)

Other

SM Higgs

Uncertainty

Data/Pred.

 $m_{\text{HH}} [\text{GeV}]$ 