$\tau \tau \rightarrow \phi (B \cdot \phi)$

$\sigma (gg\phi) \cdot B(\phi \rightarrow \tau\tau)$ [pb]

$\sigma (bb\phi) \cdot B(\phi \rightarrow \tau\tau)$ [pb]

CMS $\phi \rightarrow \tau\tau$

$19.7 \text{ fb}^{-1} (8 \text{ TeV})$

$m_\phi = 100 \text{ GeV}$

- 95% CL
- 68% CL

Best fit

Expected for SM H(125 GeV)

$= 100 \text{ GeV}$

$\phi m (8 \text{ TeV})^{-1}$

19.7 fb$^{-1} (8 \text{ TeV})$