

$\sigma(bb\phi) \cdot B(\phi \rightarrow \tau\tau)$ (pb) $\mu\tau_h + e\tau_h + e\mu + \tau_h\tau_h$ **CMS***Preliminary* $m_\phi = 100$ GeV

68% CL



95% CL



Best fit



Expected for 125 GeV SM Higgs

18

16

14

12

10

8

6

4

2

0

5

10

15

20

25

30

35

40

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