

CMS 137 fb^{-1} (13 TeV) $\text{H} \rightarrow \gamma\gamma$ $|\eta^{j_i}| < 4.7$ $p_{\text{T}}^{j_i} > 30 \text{ GeV}$ 

MADGRAPH5_amc@NLO, NNLOPS ggH + HX



MADGRAPH5_amc@NLO ggH + HX



POWHEG ggH + HX



HX = MADGRAPH5_amc@NLO VBF+VH+ttH

Data, stat \oplus syst unc.

syst unc.

p-value(nominal SM): 0.550

 $\Delta\sigma_{\text{fid}}/\Delta|\Delta\phi_{\gamma\gamma,j_1j_2}| \text{ (fb)}$

Ratio to prediction

 $|\Delta\phi_{\gamma\gamma,j_1j_2}|$ 10^3 10^2 10^1 10^0

2.5

0.0

-2.5

0.0

0.5

1.0

1.5

2.0

2.5

3.0

