

CMS $137 \text{ fb}^{-1} (13 \text{ TeV})$ $\text{H} \rightarrow \gamma\gamma$ $|\eta^{j_1}| < 2.5$ $p_T^{j_1} > 30 \text{ GeV}$

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): 0.375

 $\Delta\sigma_{\text{fid}} / \Delta p_T^{j_1} (\text{fb}/\text{GeV})$

2.0

1.5

1.0

0.5

0.0

 $\sigma_{\text{fid}} (p_T^{j_1} > 200.0 \text{ GeV})$
50.0 GeVRatio to
prediction

50

75

100

125

150

175

200

225

250

 $p_T^{j_1} (\text{GeV})$