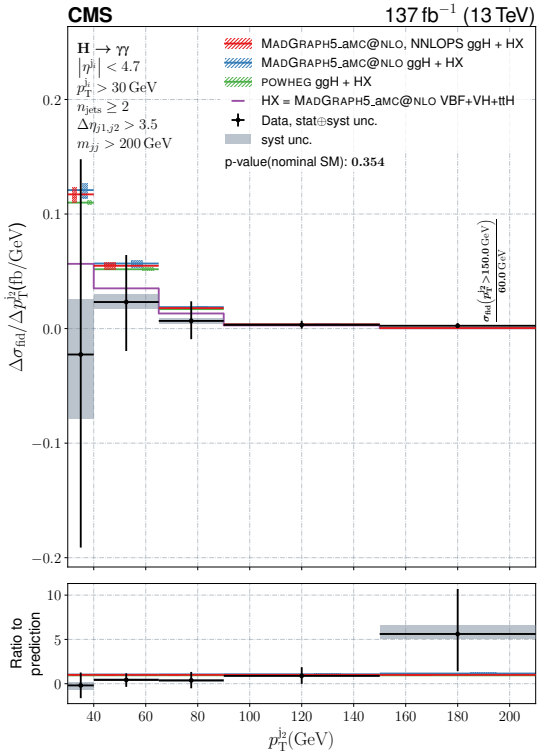
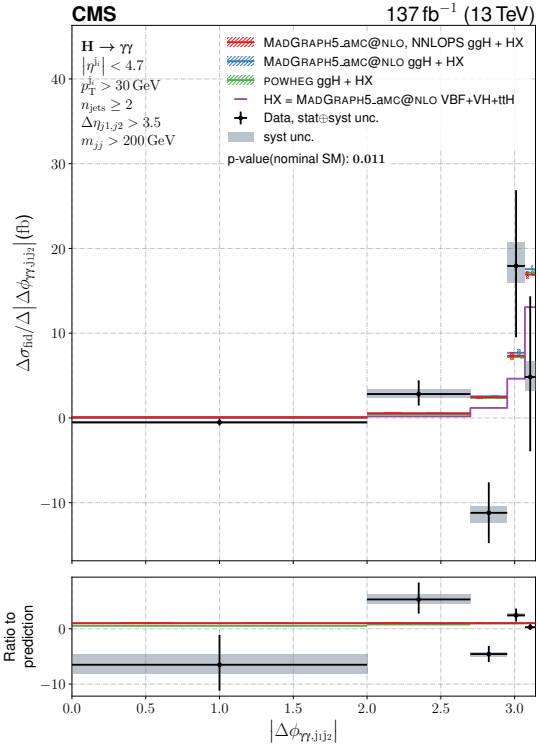
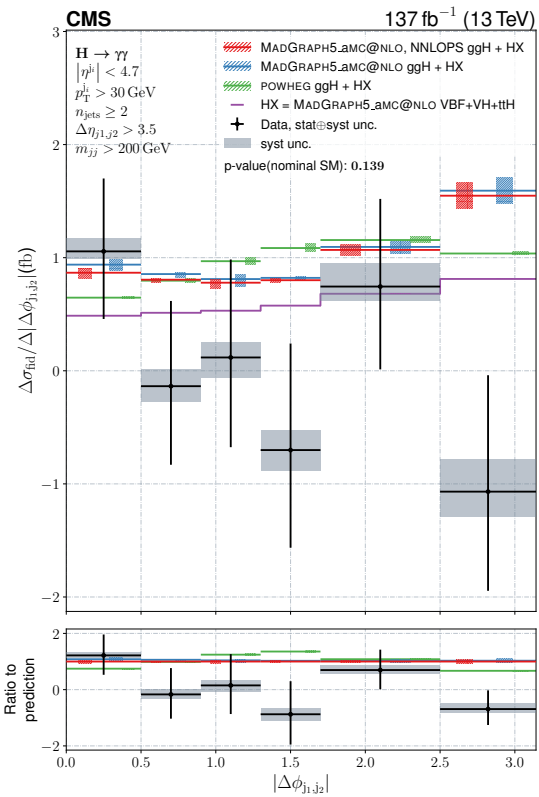
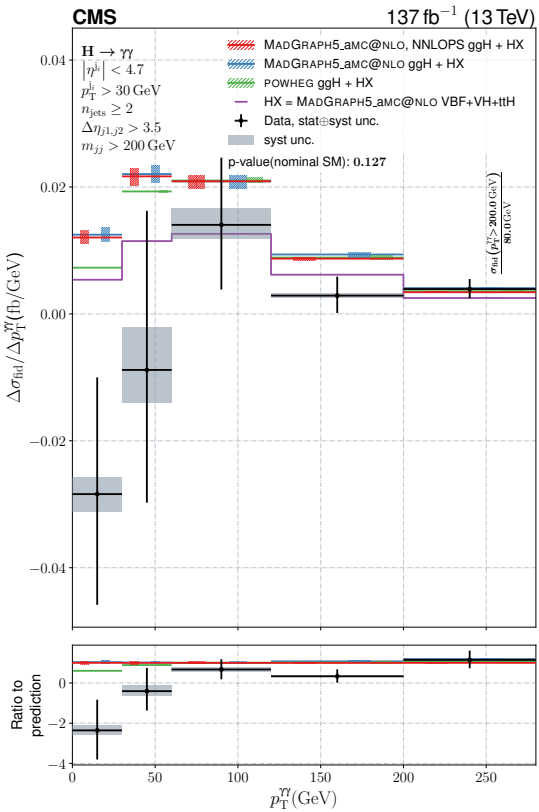

CMS
137 fb^{-1} (13 TeV)
$H \to \gamma\gamma$
$|\eta^{j_i}| < 4.7$
$p_T^{j_i} > 30$ GeV
$n_{jets} \geq 2$
$\Delta\eta_{j1,j2} > 3.5$
$m_{jj} > 200$ GeV
MadGraph5_aMC@NLO, NNLOPS ggH + HX
MadGraph5_aMC@NLO ggH + HX
POWHEG ggH + HX
HX = MadGraph5_aMC@NLO VBF+VH+ttH
Data, stat⊕syst unc.
syst unc.
p-value(nominal SM): 0.354
$\frac{\sigma_{fid}(p_T^{j_2} > 150.0\,\text{GeV})}{60.0\,\text{GeV}}$
$\Delta\sigma_{fid}/\Delta p_T^{j_2}$(fb/GeV)
Ratio to prediction
$p_T^{j_2}$(GeV)


CMS
137 fb^{-1} (13 TeV)
$H \to \gamma\gamma$
$|\eta^{j_i}| < 4.7$
$p_T^{j_i} > 30$ GeV
$n_{jets} \geq 2$
$\Delta\eta_{j1,j2} > 3.5$
$m_{jj} > 200$ GeV
MadGraph5_aMC@NLO, NNLOPS ggH + HX
MadGraph5_aMC@NLO ggH + HX
POWHEG ggH + HX
HX = MadGraph5_aMC@NLO VBF+VH+ttH
Data, stat⊕syst unc.
syst unc.
p-value(nominal SM): 0.011
$\Delta\sigma_{fid}/\Delta|\Delta\phi_{\gamma\gamma,j_1j_2}|$(fb)
Ratio to prediction
$|\Delta\phi_{\gamma\gamma,j_1j_2}|$


CMS
137 fb^{-1} (13 TeV)
$H \to \gamma\gamma$
$|\eta^{j_i}| < 4.7$
$p_T^{j_i} > 30$ GeV
$n_{jets} \geq 2$
$\Delta\eta_{j1,j2} > 3.5$
$m_{jj} > 200$ GeV
MadGraph5_aMC@NLO, NNLOPS ggH + HX
MadGraph5_aMC@NLO ggH + HX
POWHEG ggH + HX
HX = MadGraph5_aMC@NLO VBF+VH+ttH
Data, stat⊕syst unc.
syst unc.
p-value(nominal SM): 0.139
$\Delta\sigma_{fid}/\Delta|\Delta\phi_{j_1,j_2}|$(fb)
Ratio to prediction
$|\Delta\phi_{j_1,j_2}|$


CMS
137 fb^{-1} (13 TeV)
$H \to \gamma\gamma$
$|\eta^{j_i}| < 4.7$
$p_T^{j_i} > 30$ GeV
$n_{jets} \geq 2$
$\Delta\eta_{j1,j2} > 3.5$
$m_{jj} > 200$ GeV
MadGraph5_aMC@NLO, NNLOPS ggH + HX
MadGraph5_aMC@NLO ggH + HX
POWHEG ggH + HX
HX = MadGraph5_aMC@NLO VBF+VH+ttH
Data, stat⊕syst unc.
syst unc.
p-value(nominal SM): 0.127
$\frac{\sigma_{fid}(p_T^{\gamma\gamma} > 200.0\,\text{GeV})}{80.0\,\text{GeV}}$
$\Delta\sigma_{fid}/\Delta p_T^{\gamma\gamma}$(fb/GeV)
Ratio to prediction
$p_T^{\gamma\gamma}$(GeV)