Sources of systematic uncertainties	Type	Value (%)
Integrated luminosity	Normalization	2.5
Photon related uncertainties		
Diphoton selection (with trigger uncertainties and PES)	Normalization	2.0
Photon identification	Normalization	1.0
PES ($\frac{\Delta m_{\gamma\gamma}}{m_{\gamma\gamma}}$)	Shape	0.5
PER ($\frac{\Delta \sigma_{\gamma\gamma}}{\sigma_{\gamma\gamma}}$)	Shape	5.0
Jet related uncertainties		
Dijet selection (JES+JER)	Normalization	0.5
JES ($\frac{\Delta m_{jj}}{m_{jj}}$)	Shape	1.0
JER ($\frac{\Delta \sigma_{jj}}{\sigma_{jj}}$)	Shape	5.0
Resonant analysis specific uncertainties		
Mass window selection (JES+JER)	Normalization	3.0
Classification MVA (HPC)	Normalization	11–19
Classification MVA (MPC)	Normalization	3–9
Nonresonant analysis specific uncertainties		
$\widetilde{M}_X$ Classification	Normalization	0.5
Classification MVA (HPC)	Normalization	11–19
Classification MVA (MPC)	Normalization	3–9
Theoretical uncertainties in the SM single-Higgs boson production		
QCD missing orders (ggH, VBF H , VH, t$\bar{\text{t}}$H)	Normalization	0.4–5.8
PDF and α_S uncertainties (ggH, VBF H , VH, t$\bar{\text{t}}$H)	Normalization	1.6–3.6
Theoretical uncertainty b$\bar{\text{b}}$H	Normalization	20
Theoretical uncertainties in the SM HH boson production		
QCD missing orders	Normalization	4.3–6
PDF and α_S uncertainties	Normalization	3.1
m_t effects	Normalization	5