

Source of uncertainty	Value	
	2017	2018
Experimental signal uncertainties		
Integrated luminosity	2.3%	2.5%
Muon ID	$4 \times 0.6\%$	$4 \times 0.6\%$
Dimuon isolation	$2 \times 0.1\%$	$2 \times 0.1\%$
Reco. of close muons in tracker (signal mass < 9 GeV)	$2 \times 1.2\%$	$2 \times 1.2\%$
Reco. of close muons in muon system (signal mass < 9 GeV)	$2 \times 1.3\%$	$2 \times 1.3\%$
Muon HLT	0.9%	0.6%
Reconstruction of displaced track/vertex	—	$2 \times 0.5\%$
PU distribution	0.1%	0.05%
PU effect on signal efficiency	2.3%	1.8%
Dimuon mass consistency	0.24%	0.24%
Experimental background uncertainties below J/ψ (0.21–2.72 GeV)		
Normalization	14.2%	10.1%
Systematic	6.6%	4.1%
Experimental background uncertainties above J/ψ and below Υ (3.24–9 GeV)		
Normalization	73.5%	12.3%
Systematic	5.9%	1.5%
Experimental background uncertainties above Υ (11–60 GeV)		
Normalization	6.9%	8.4%
Systematic	1.2%	2.3%
Shape	23.6%	36.7%
Theoretical signal uncertainties		
PDF + α_S + QCD scales	8%	8%
Higgs cross-section and BR ^a	3.8%	3.8%
NNLO Higgs p_T re-weighting ^a	2%	2%

^aUncertainty is not used in the vector portal model.