

Uncertainty	Background	Signal	Treatment notes
Statistical uncertainties			
MC event yield	ignored	Run2 / $\sqrt{\mathcal{L}}$	YR18 recommendation
Data event yield	Run2 / $\sqrt{\mathcal{L}}$	–	YR18 recommendation
Extrapolation of background distributions in signal region	ignored	–	YR18 recommendation
Theoretical systematic uncertainties			
Scales (fact., renorm.)	Run2 $\times 1/2$	Run2 $\times 1/2$	YR18 recommendation
α_s	Run2 $\times 1/2$	Run2 $\times 1/2$	YR18 recommendation
Top p_T reweighting	Run2 $\times 1/3$	–	YR18 recommendation
ISR reweighting	–	Run2 $\times 1/2$	YR18 recommendation
$Z \rightarrow \nu\nu$ modeling	Run2 $\times 1/2$	Run2 $\times 1/2$	YR18 recommendation
Multijet modeling	Run2 $\times 1/2$	Run2 $\times 1/2$	YR18 recommendation
Experimental systematic uncertainties			
Luminosity	$\pm 1.0\%$	$\pm 1.0\%$	YR18 recommendation
Pileup	Run2	Run2	Increased PU but better detector performance
Jet energy/mass scale	Run2 $\times 1/2$	Run2 $\times 1/2$	YR18 recommendation
Jet energy/mass resolution	Run2 $\times 1/2$	Run2 $\times 1/2$	YR18 recommendation
p_T^{miss}	Run2 $\times 1/2$	Run2 $\times 1/2$	from JES, JER
Electron reconstruction	Run2	Run2	small
Electron identification	Run2	Run2	small
Muon tracking	Run2	Run2	small
Muon identification	Run2	Run2	small
Lost lepton shape	Run2 / $\sqrt{\mathcal{L}}$	–	stat-dependent
b tag	$\pm 1\%$	$\pm 1\%$	YR18 recommendation
W/Top tag	Run2	Run2	YR18 recommendation
W/Top mistag	Run2	Run2	YR18 recommendation
W/Top masstag	Run2	–	YR18 recommendation
W/Top antitag	Run2	–	YR18 recommendation
Photon purity	Run2 $\sqrt{\mathcal{L}}$	–	stat-dependent
Direct photon fraction	Run2 $\sqrt{\mathcal{L}}$	–	stat-dependent
Z/ γ ratio	ignored	–	small
Z($\nu\bar{\nu}$) closure	Run2 / $\sqrt{\mathcal{L}}$	–	stat-dependent