

Source	Typical uncertainty size
PDF uncertainties (including α_s)	25–100%
Factorization and renormalization scale	$\approx 1\text{--}3\%$
NNLO QCD + NLO EWK corrections	$\approx 10\%$
Final state radiation	$\approx 40\%$
Initial state radiation	$\approx 10\%$
Pileup	$\pm 4.6\%$ on total inelastic pp cross section
B-tagging for top-quark veto	$\approx 3\%$ on top-quark contribution
Electron energy scale	1–2% on the reconstructed mass
Top-quark background	$\approx 1\%$ (from control sample studies)
Muon momentum resolution	10% of nominal resolution
Diboson background	10%
Muon momentum scale	$\Delta M/M \approx 1\% M [\text{TeV}]$