

Uncertainty source	Magnitude	Type	Processes	Variation	Correlation
Statistical	1–100%	per event	All MC samples	1–100%	No
Luminosity	1.2–2.5%	per event	Conv./Rare/Signal	1.2–2.5%	Yes
Electron/Muon reco., ID and iso. efficiency	1–5%	per lepton	All MC samples	2–5%	No
Tau reco., ID and iso. efficiency	5–15%	per lepton	All MC samples	5–25%	No
Lepton displacement efficiency	1–2%	per lepton	All MC samples	3–5%	No
Trigger efficiency	1–4%	per lepton	All MC samples	<3%	No
b tag efficiency	1–10%	per jet	All MC samples	2–5%	No
Pileup	5%	per event	All MC samples	<3%	Yes
PDF, fact./renorm. scale	<20%	per event	All MC samples	<10%	Yes
Jet energy scale	1–10%	per jet	All MC samples	<5%	No
Unclustered energy scale	1–25%	per event	All MC samples	<2%	No
Muon energy scale and resolution	2%	per lepton	All MC samples	<5%	No
Electron energy scale and resolution	<2%	per lepton	All MC samples	<5%	Yes
Tau energy scale	<10%	per lepton	All MC samples	<5%	No
Electron charge misidentification	30%	per lepton	All MC samples	<25%	No
WZ normalization	3–5%	per event	WZ	3–5%	No
ZZ normalization	4–5%	per event	ZZ	4–5%	No
t $\bar{t}$ Z normalization	15–25%	per event	t $\bar{t}$ Z	15–25%	No
Conversion normalization	10–50%	per event	Z $\gamma$ /Conv.	10–50%	No
Rare normalization	50%	per event	Rare	50%	No
Prompt and misidentification rates	20–60%	per lepton	MisID	20–50%	No
DY-t $\bar{t}$ process dependency	5–25%	per lepton	MisID	5–25%	Yes
Diboson jet multiplicity modeling	<30%	per event	WZ/ZZ	5–30%	No
Diboson $p_T$ modeling	<30%	per event	WZ/ZZ	5–15%	No