

Source	Uncertainty in tcH prediction	Uncertainty in tuH prediction	Uncertainty in SM SS prediction	Uncertainty in nonprompt estimate	Uncertainty in charge flip estimate
Estimate normalization	—	—	—	30%	30%
$\epsilon_{\text{TL}}/\epsilon_{\text{q}}$	—	—	—	7–10%	<5%
Integrated luminosity	1.6%	1.6%	1.6%	—	—
Pileup	<2%	<2%	<2%	—	—
Trigger efficiency	2%	2%	2%	—	—
Lepton efficiency	2–3%	2–3%	2–3%	—	—
Jet energy scale	1–6%	<8%	<5%	—	—
b/c tagging	10–16%	6–13%	7–14%	—	—
Theory normalization	6–10%	6–10%	5–25%	—	—
Renormalization and factorization scale shape	7–9%	2–6%	10–15%	—	—
PDF shape	<2%	<2%	4–6%	—	—
Total	14–16%	11–14%	20–28%	31–35%	29–31%