

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