

Source of uncertainty	Shape	$H^\pm$	$t\bar{t}+LF$	$t\bar{t}+c(\bar{c})$	$t\bar{t}+b(\bar{b})$	$t,tW,t\bar{t}+X$	V+jets
Luminosity		2.5	2.5	2.5	2.5	2.5	2.5
Pileup	✓	0.4	0.2	0.2	0.2	0.2	1.8
Jet energy scale and resolution	✓	2.8	3.9	3.3	3.0	3.9	5.3
b jet identification	✓	4.6	3.1	4.1	4.6	3.0	11.6
Lepton selection efficiency		3.4	3.1	3.3	3.3	3.3	3.7
Unclustered $p_T^{\text{miss}}$ energy scale		2.0	2.0	2.0	2.0	2.0	2.0
Acceptance (QCD scale, PDF)	✓	9.8	9.0	11.4	12.0	3.3	11.2
Cross section (QCD scale, PDF)		—	5.5	5.5	5.5	4.0	4.1
Top quark mass		—	2.7	2.7	2.7	2.2	—
$t\bar{t}$ parton showering		—	6.4	10.6	9.5	—	—
$t\bar{t}$ HF normalization		—	—	50.0	50.0	—	—