

Relative uncertainty source (%)	$N_{\text{jets}}$	$H_T$	$S_T$	$p_T^{\text{miss}}$	$p_T^W$	$p_T^\ell$	$ \eta^\ell $
b tagging efficiency	0.1 – 0.8	0.2 – 1.1	0.2 – 1.6	0.1 – 1.2	0.1 – 1.7	0.1 – 1.9	0.1 – 0.6
Electron efficiency	0.1 – 0.2	0.1 – 0.3	0.1 – 0.6	0.1 – 0.3	0.1 – 1.0	0.1 – 1.6	0.1 – 0.3
Muon efficiency	0.1 – 0.2	0.1 – 0.6	0.1 – 0.7	0.1 – 0.6	0.1 – 1.1	0.3 – 1.5	0.1 – 0.6
JER	0.1 – 0.6	0.1 – 0.7	0.2 – 2.3	0.8 – 7.5	0.2 – 2.5	0.1 – 0.2	0.1 – 0.1
JES	0.1 – 7.5	2.6 – 16.3	2.5 – 18.7	2.3 – 7.2	0.5 – 6.0	0.1 – 2.8	0.1 – 0.2
Electron transverse momentum in $p_T^{\text{miss}}$	—	—	0.1 – 0.4	0.1 – 1.2	0.1 – 0.9	—	—
Muon transverse momentum in $p_T^{\text{miss}}$	—	—	0.1 – 1.2	0.1 – 4.4	0.1 – 1.2	—	—
Tau lepton transverse momentum in $p_T^{\text{miss}}$	—	—	0.1 – 1.7	0.1 – 1.6	0.1 – 1.9	—	—
Unclustered transverse momentum in $p_T^{\text{miss}}$	—	—	0.1 – 2.4	0.3 – 2.4	0.1 – 1.3	—	—
QCD bkg cross section	0.1 – 0.3	0.1 – 0.4	0.1 – 0.6	0.1 – 0.3	0.1 – 1.0	0.1 – 4.7	0.2 – 2.8
QCD bkg shape	<0.1	0.2 – 0.9	0.1 – 1.3	0.1 – 0.2	0.1 – 1.6	0.1 – 4.7	0.1 – 1.4
Single top quark cross section	0.1 – 0.4	0.1 – 2.2	0.1 – 4.5	0.1 – 5.0	0.1 – 7.2	0.1 – 6.1	<0.1
V+jets cross section	0.1 – 0.3	0.1 – 2.6	0.1 – 3.7	0.1 – 2.1	0.1 – 3.6	0.1 – 5.5	0.1 – 1.6
PDF	0.2 – 1.1	0.3 – 1.1	0.3 – 1.1	0.2 – 1.5	0.2 – 1.4	0.3 – 0.9	0.1 – 1.0
Color reconnection (Gluon move)	0.1 – 3.6	0.1 – 4.4	0.1 – 12.1	0.2 – 1.9	0.1 – 1.8	0.1 – 4.4	0.1 – 1.2
Color reconnection (QCD-based)	0.1 – 3.2	0.1 – 4.8	0.4 – 7.3	0.2 – 5.6	0.4 – 4.6	0.1 – 8.4	0.2 – 1.7
Color reconnection (Early resonance decays)	0.1 – 5.3	0.1 – 7.0	0.1 – 5.0	0.1 – 1.9	0.2 – 5.0	0.1 – 6.1	0.1 – 0.9
Fragmentation	0.1 – 2.0	0.5 – 1.5	0.5 – 1.5	0.1 – 2.4	0.2 – 2.4	0.1 – 1.5	0.2 – 1.0
$h_{\text{damp}}$	0.3 – 5.9	0.1 – 4.2	0.1 – 4.4	0.2 – 3.7	0.1 – 4.2	0.3 – 3.9	0.3 – 1.3
Top quark mass	0.1 – 2.4	0.2 – 4.9	0.3 – 5.5	0.1 – 6.6	0.1 – 2.4	0.1 – 5.7	0.2 – 1.4
Peterson fragmentation model	0.1 – 2.6	0.2 – 1.4	0.1 – 1.3	0.1 – 2.0	0.1 – 2.0	0.2 – 1.3	0.1 – 1.0
Shower scales	0.4 – 5.0	0.8 – 6.2	0.7 – 6.0	0.4 – 3.6	0.4 – 5.7	0.4 – 6.2	0.4 – 1.7
B hadron decay semileptonic branching fraction	0.1 – 0.9	0.1 – 1.2	0.1 – 1.2	0.1 – 0.7	0.1 – 1.1	0.3 – 0.9	0.1 – 1.2
Top quark $p_T$	0.1 – 0.4	0.1 – 2.0	0.1 – 2.2	0.1 – 1.3	0.1 – 1.7	0.2 – 1.9	0.1 – 1.0
Underlying event tune	0.1 – 4.5	0.1 – 6.3	0.3 – 6.6	0.1 – 7.6	0.2 – 3.7	0.1 – 9.1	0.2 – 1.5
Simulated sample size	0.1 – 1.6	0.1 – 1.6	0.1 – 1.9	0.1 – 2.2	0.1 – 1.3	0.1 – 1.7	0.2 – 0.9
Additional interactions	0.1 – 0.4	0.1 – 1.0	0.1 – 1.7	0.1 – 1.5	0.1 – 0.9	0.1 – 1.1	0.1 – 0.1
Integrated luminosity	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total	0.7 – 13.9	3.4 – 16.8	3.4 – 20.5	3.5 – 15.4	1.4 – 14.8	1.1 – 16.9	1.2 – 4.8