

Source	$R_{\text{t}\bar{\text{t}}\text{b}\bar{\text{b}}/\text{t}\bar{\text{t}}\text{jj}}$ [%]		$\sigma_{\text{t}\bar{\text{t}}\text{jj}}$ [%]	
	Dilepton	Lepton+jets	Dilepton	Lepton+jets
Lepton uncertainties				
Trigger	< 0.1	0.2	1.0	0.5
Lepton identification	0.6	0.2	1.1	1.3
Lepton energy scale	–	< 0.1	–	0.1
Jet uncertainties				
Jet energy resolution (JER)	0.4	0.3	0.3	0.7
Jet energy scale (JES)	1.5	1.2	2.9	3.6
b tagging uncertainties				
c flavor b tag lin.	2.2	2.0	1.0	0.3
c flavor b tag quad.	0.7	1.2	0.3	0.2
Heavy flavor b tag	4.0	0.1	0.5	0.9
Heavy flavor b tag lin.	0.9	0.4	1.5	0.5
Heavy flavor b tag quad.	2.0	0.3	1.5	0.8
Light flavor b tag	4.9	0.9	5.5	4.9
Light flavor b tag lin.	0.1	0.2	0.3	1.1
Light flavor b tag quad.	0.7	0.7	0.1	1.4
Theory uncertainties				
Initial state radiation (ISR)	1.0	2.2	2.5	1.2
Final state radiation (FSR)	0.8	0.7	2.5	5.9
ME-PS matching	0.5	< 0.1	1.8	1.9
Underlying events (UE)	1.5	1.5	0.4	1.4
Q^2 scale (ME)	0.1	0.4	0.1	1.4
top- p_{T}	0.2	0.4	1.6	0.3
Ratio $R_{\text{t}\bar{\text{t}}\text{bj}/\text{t}\bar{\text{t}}\text{b}\bar{\text{b}}}^{\text{MC}}$	1.4	0.2	1.3	0.7
Other uncertainties				
Pileup	0.7	0.2	1.3	0.1
Backgrounds	0.3	2.0	0.7	1.2
Simulated sample size	1.5	2.8	0.1	2.2
Luminosity	0.2	0.5	2.6	3.1
Total	8.0	5.5	8.8	10.0