

	Source	Correlation	Uncertainty (%)	
			yield	$\sigma(\text{t}\bar{\text{t}}\gamma)$
Experimental	Luminosity	partial	2.3-2.5	2.4
	Pileup	✓	< 2.0	< 0.5
	Trigger efficiency	–	0.1-0.5	< 0.5
	Muon reconstruction and identification	partial	0.5-0.7	0.7
	Electron reconstruction and identification	✓	0.2-1.7	< 0.5
	Photon reconstruction and identification	✓	0.4-1.4	1.0
	$p_{\text{T}}(e)$ and $p_{\text{T}}(\gamma)$ reconstruction	✓	<1.2	< 0.5
	JES	partial	1.0-4.1	1.9
	JER	–	0.4-1.6	0.6
	B-tagging	2017/2018	0.8-1.6	1.1
	L1 prefireing	2016/2017	0.3-0.9	< 0.5
	Theoretical	Tune	✓	0.1-1.9
Color reconnection		✓	0.4-3.6	0.6
ISR/FSR		✓	1.0-5.6	1.9
PDF		✓	< 0.5	< 0.5
ME scales μ_r, μ_f		✓	0.4-4.7	< 0.5
Background	Multijet normalization	✓	1.3-6.5	0.9
	Misidentified γ estimation	✓	1.2-2.7	2.0
	$\text{t}\bar{\text{t}}$ normalization	✓	1.0-1.9	1.0
	Misidentified e	–	2.5-8.0	1.8
	$Z\gamma$ normalization	✓	0.6-2.5	0.5
	$W\gamma$ normalization	✓	1.0-3.5	2.4
	DY normalization	✓	0.1-1.1	1.0
	“Other” bkg. normalization	✓	0.3-1.0	< 0.5