Source	Variation	Samples
tt̄ cross section	+4.8%,-5.5%	t t
single top cross section (tW)	±5.4%	single top
Luminosity	±2.7%	tt, single top, signal
t tagging	±23%	tt, single top, signal
AK4 to AK8 b tagging	±3%	tt, single top, signal
Pileup	$\pm 1\sigma \left(\sigma_{mb}\right)$	t t , signal
PDF	$\pm 1\sigma(x,Q^2)$	t ī , signal
Jet Energy Scale	$\pm 1\sigma(p_{ m T})$	t t , signal
Jet Energy Resolution	$\pm 1\sigma(p_{\mathrm{T}},\eta)$	t ī , signal
Q ² Scale	$\pm 1\sigma(Q^2)$	t t
b tagging	$\pm 1\sigma(p_{\mathrm{T}})$	t t , signal
Trigger	$\pm 1\sigma(H_T)$	t t , signal
Average b tagging rate fit	$\pm 1\sigma(p_{\mathrm{T}},\eta)$	QCD (from data)
QCD MC closure	$\pm 1\sigma(M_{ m tb})$	QCD (from data)
b candidate mass	$\pm 1\sigma(M_b)$	QCD (from data)
Alternate functional forms	$\pm 1\sigma(p_{\mathrm{T}},\eta)$	QCD (from data)