

	Run 1	Early Run 2	Run 2 legacy
Default setup			
ME generator	MADGRAPH5 $t\bar{t} + \leq 3$ jets @ LO	POWHEG v2 $t\bar{t}$ @ NLO	POWHEG v2 $t\bar{t}$ @ NLO
PDF	CT10 NLO	NNPDF3.0 NLO	NNPDF3.1 NNLO
PS/UE generator	PYTHIA6.4	PYTHIA8.2	PYTHIA8.2
PS/UE tune	Z2(*)	CUETP8M2T4	CP5
Uncertainties			
PDF	CT10 eigenvectors, MSTW08, NNPDF2.3 †	NNPDF replicas †	NNPDF eigenvectors, CT14, MMHT14 †
ME scales	$\mu_r \oplus \mu_f$ up/down	$\mu_r \oplus \mu_f$ 7-point †	$\mu_r \oplus \mu_f$ 7-point †
ME-PS matching	threshold up/down	h_{damp} up/down	h_{damp} up/down
Alternative ME	POWHEG v1	MADGRAPH5_aMC@NLO	MADGRAPH5_aMC@NLO
Top quark p_T	ratio to 7/8 TeV data	ratio to 13 TeV data	ratio to 13 TeV data
ISR	μ_r^{ISR} up/down (correlated with ME)	μ_r^{ISR} up/down	μ_r^{ISR} up/down †
FSR	—	μ_r^{FSR} up/down	μ_r^{FSR} up/down †
UE	P11, P11 mpiHi/TeV	CUETP8M2T4 up/down	CP5 up/down
CR	P11, P11noCR	ERD on/off, CR1 (ERD on), CR2 (ERD off)	ERD on/off, CR1, CR2 (both ERD off)
b fragmentation	r_b up/down †	r_b up/down, Peterson †	r_b up/down, un/tuned, Peterson †