

order	PDF order	code	σ [fb]
LO	LO	MG5_aMC	$521.4^{+165.4}_{-116.9}$
app. NLO	NLO	in-house MC	$737.7^{+38.5}_{-64.5}$
NLO no qg	NLO	MG5_aMC	$730.4^{+41.8}_{-64.9}$
NLO	NLO	MG5_aMC	$728.3^{+93.8}_{-90.3}$
NLO+NLL	NLO	in-house MC +MG5_aMC	$742.0^{+90.1}_{-30.3}$
NLO+NNLL	NNLO	in-house MC +MG5_aMC	$777.8^{+61.3}_{-65.2}$
nNLO	NNLO	in-house MC +MG5_aMC	$798.7^{+36.2}_{-23.6}$
$(\text{NLO}+\text{NNLL})_{\text{NNLO exp.}}$	NNLO	in-house MC +MG5_aMC	$766.2^{+17.2}_{-50.1}$

Table 2. Total cross section for $t\bar{t}Z$ production at the LHC with $\sqrt{s} = 13$ TeV and MMHT 2014 PDFs. The default value of the factorization scale is $\mu_{f,0} = M/2$, and the uncertainties are estimated through variations of this scale (and of the hard and soft scales μ_s and μ_h when applicable), as explained in the text.