

	T2tt_LM	T2tt_MM	T2tt_HM	T2tt_VHM
tt, W+jets, and single top prediction	19.8	8.53	3.22	1.11
Single top fraction (%)	3.69	7.71	19.1	29.8
W+jets fraction (%)	2.27	< 1%	< 1%	< 1%
MC statistical uncertainty	1.39	1.09	0.64	0.37
MVA lepton sel. scale factors	2.47	0.82	0.29	0.13
Kinematics reweighting	0.27	0.20	0.10	0.04
Closure ( $1\ell$ )	1.61	1.01	0.55	0.25
Closure (relaxed baseline)	0.02	0.01	0.01	0.01
Single top kinematics	0.37	0.33	0.31	0.17
Total uncertainty (yield)	3.29	1.74	0.95	0.50
Total uncertainty (%)	16.6	20.4	29.5	44.7
Z+jets prediction	0.69	2.30	1.92	0.59
MC statistical uncertainty	0.18	0.32	0.26	0.14
Kinematics reweighting	0.08	0.38	0.54	0.18
Closure ( $2\ell$ )	0.11	0.74	0.57	0.15
Closure (relaxed baseline)	0.03	0.12	0.10	0.03
Total uncertainty (yield)	0.23	0.90	0.84	0.28
Total uncertainty (%)	33.5	38.9	43.8	46.4
ttZ prediction	1.34	2.66	1.62	0.99
MC statistical uncertainty	0.11	0.18	0.15	0.11
MC simulation	0.10	0.42	0.24	0.26
MC normalisation	0.42	0.82	0.50	0.31
Kinematic closure	0.21	0.85	0.49	0.26
Total uncertainty (yield)	0.49	1.27	0.75	0.49
Total uncertainty (%)	36.6	47.7	46.6	49.5
QCD multijet prediction	0.33	<0.01	<0.01	<0.01
MC statistical uncertainty	$\pm 0.27$	$\pm 0.01$	$\pm 0.01$	$\pm 0.01$
MVA discriminator shape	$\pm 0.16$	$\pm 0.01$	$\pm 0.01$	$\pm 0.01$
$\Delta\phi$ shape upper and lower bounds	+1.48, -0.33	+0.22, -0.01	+0.07, -0.01	+0.01
Low luminosity bins upper bound	—	+0.11	+0.02	+0.02
Integrated uncertainty band ( $\mu$ )	0.91	0.17	0.04	0.01
Integrated uncertainty band ( $\sigma$ )	0.58	0.07	0.02	0.01