

# ATLAS Internal

JES $\eta$ intercalibration modelling	100.0	-20.1	-1.1	-3.4	-3.6	-2.8	4.6	6.9	0.7	2.7	9.9	9.4	-0.2	-2.4	-0.1	-2.4	-8.8	-2.6	-24.8	-5.3	-14.2	-2.1
JES flavour composition	-20.1	100.0	10.1	-8.2	-30.9	-8.9	9.6	4.5	0.7	-4.4	-3.6	-2.9	8.6	3.9	4.3	13.2	-2.9	7.2	-7.6	-11.0	-2.8	-2.4
JES flavour response	-1.1	10.1	100.0	21.7	9.3	20.2	-13.3	-3.2	-6.7	0.8	4.7	6.4	-6.5	4.0	-0.6	6.9	4.0	-8.5	5.2	2.7	-2.9	0.2
JES pileup offset NPV	-3.4	-8.2	21.7	100.0	-5.8	-18.9	6.3	-0.8	5.1	0.6	0.9	-1.2	-4.6	0.8	3.8	-1.1	-0.8	6.1	-0.3	-4.4	-2.6	-1.2
JES pileup $\rho$ topology	-3.6	-30.9	9.3	-5.8	100.0	-6.6	4.6	0.7	1.7	-2.8	-0.4	-6.3	6.0	2.8	3.0	8.2	-0.3	3.3	6.8	-8.5	3.2	-4.9
JES effective NP modelling 1	-2.8	-8.9	20.2	-18.9	-6.6	100.0	9.6	-0.0	4.8	1.6	1.2	-0.7	-2.7	-0.2	3.9	0.0	2.1	7.0	3.8	-3.1	-2.9	-1.6
Fakes Norm.	4.6	9.6	-13.3	6.3	4.6	9.6	100.0	-22.8	16.5	8.5	-14.8	4.9	-8.4	-2.3	6.0	7.1	-2.3	2.0	-5.2	3.4	-4.5	-6.9
W+jets XS scale	6.9	4.5	-3.2	-0.8	0.7	-0.0	-22.8	100.0	51.8	22.1	-6.5	2.6	-5.0	-4.3	-2.3	3.3	0.0	-0.1	3.8	-0.1	2.4	1.9
Wt diagram subtraction	0.7	0.7	-6.7	5.1	1.7	4.8	16.5	51.8	100.0	-28.3	-2.1	-3.4	-1.7	11.3	5.4	3.5	-3.7	2.6	-2.0	6.1	-9.3	-5.5
Wt PS & hadronisation	2.7	-4.4	0.8	0.6	-2.8	1.6	8.5	22.1	-28.3	100.0	-0.4	-5.0	-1.5	7.6	-2.3	-3.3	-0.6	-0.5	1.7	-5.2	-4.6	1.2
t-chan NLO Gen	9.9	-3.6	4.7	0.9	-0.4	1.2	-14.8	-6.5	-2.1	-0.4	100.0	15.1	1.2	5.1	3.6	-5.5	-5.6	-1.8	-11.1	10.3	-74.3	4.5
t-chan PS & hadronisation	9.4	-2.9	6.4	-1.2	-6.3	-0.7	4.9	2.6	-3.4	-5.0	15.1	100.0	3.8	4.7	-6.0	-1.5	3.6	1.7	9.2	-0.1	20.0	1.7
tt $\geq$ 1b NLO gen.	-0.2	8.6	-6.5	-4.6	6.0	-2.7	-8.4	-5.0	-1.7	-1.5	1.2	3.8	100.0	28.0	-22.0	-20.5	2.9	7.1	1.5	-15.4	-4.0	19.1
ttbar bb ISR hdamp = 3mtop	-2.4	3.9	4.0	0.8	2.8	-0.2	-2.3	-4.3	11.3	7.6	5.1	4.7	28.0	100.0	15.6	-3.3	-6.1	-3.3	-5.8	2.7	1.6	-14.1
tt $\geq$ 1b PS & had.	-0.1	4.3	-0.6	3.8	3.0	3.9	6.0	-2.3	5.4	-2.3	3.6	-6.0	-22.0	15.6	100.0	-6.5	0.5	4.1	-0.5	-1.3	4.3	22.3
tt $\geq$ 1c NLO gen.	-2.4	13.2	6.9	-1.1	8.2	0.0	7.1	3.3	3.5	-3.3	-5.5	-1.5	-20.5	-3.3	-6.5	100.0	9.7	-17.5	1.7	6.3	-0.9	0.5
ttbar cc ISR hdamp = 3mtop	-8.8	-2.9	4.0	-0.8	-0.3	2.1	-2.3	0.0	-3.7	-0.6	-5.6	3.6	2.9	-6.1	0.5	9.7	100.0	8.1	-28.0	-4.8	7.1	2.4
tt+lights NLO gen.	-2.6	7.2	-8.5	6.1	3.3	7.0	2.0	-0.1	2.6	-0.5	-1.8	1.7	7.1	-3.3	4.1	-17.5	8.1	100.0	-10.6	-63.1	-7.8	-8.4
ttbar light ISR hdamp = 3mtop	-24.8	-7.6	5.2	-0.3	6.8	3.8	-5.2	3.8	-2.0	1.7	-11.1	9.2	1.5	-5.8	-0.5	1.7	-28.0	-10.6	100.0	-26.5	12.4	3.4
tt+light PS & had.	-5.3	-11.0	2.7	-4.4	-8.5	-3.1	3.4	-0.1	6.1	-5.2	10.3	-0.1	-15.4	2.7	-1.3	6.3	-4.8	-63.1	-26.5	100.0	-1.1	-0.1
$\mu_{\text{tH}}$	-14.2	-2.8	-2.9	-2.6	3.2	-2.9	-4.5	2.4	-9.3	-4.6	-74.3	20.0	-4.0	1.6	4.3	-0.9	7.1	-7.8	12.4	-1.1	100.0	-0.6
k(tt $\geq$ 1b)	-2.1	-2.4	0.2	-1.2	-4.9	-1.6	-6.9	1.9	-5.5	1.2	4.5	1.7	19.1	-14.1	22.3	0.5	2.4	-8.4	3.4	-0.1	-0.6	100.0
JES $\eta$ intercalibration modelling	JES flavour composition	JES flavour response	JES pileup offset NPV	JES pileup $\rho$ topology	JES effective NP modelling 1	Fakes Norm.	W+jets XS scale	Wt diagram subtraction	Wt PS & hadronisation	t-chan NLO Gen	t-chan PS & hadronisation	tt $\geq$ 1b NLO gen.	ttbar bb ISR hdamp = 3mtop	tt $\geq$ 1b PS & had.	tt $\geq$ 1c NLO gen.	ttbar cc ISR hdamp = 3mtop	tt+lights NLO gen.	ttbar light ISR hdamp = 3mtop	tt+light PS & had.	$\mu_{\text{tH}}$	k(tt $\geq$ 1b)	