

Electron ID eff.	100.0	-0.1	-0.0	0.0	0.1	-0.9	0.1	0.5	-0.1	0.2	-0.1	0.5	0.0	-0.7	0.3	0.6	0.2	0.9	-0.1	-1.1	-7.2	-24.5	-1.5
Electron isol. eff. (syst)	-0.1	100.0	-0.0	0.0	0.0	-0.1	0.2	0.4	-0.0	0.1	-0.0	0.2	0.0	-0.4	0.0	0.2	-0.0	0.4	0.1	-0.4	-6.5	-21.2	-0.7
b-tag Eigenvar. 0	-0.0	-0.0	100.0	-0.0	-0.0	0.1	-0.2	-0.1	-0.0	-0.2	-0.0	-0.0	0.1	-0.0	-0.0	-0.1	-0.0	-0.0	0.2	-0.1	15.4	28.0	0.3
c-tag Eigenvar. 0	0.0	0.0	-0.0	100.0	-0.1	-1.5	-0.2	-0.3	0.0	-0.4	0.0	-0.9	0.2	0.3	0.7	0.2	0.8	-0.5	0.2	0.2	23.6	0.1	0.0
light-tag Eigenvar. 0	0.1	0.0	-0.0	-0.1	100.0	-0.9	-0.5	-0.7	0.1	-0.2	0.1	-0.4	0.1	0.5	0.4	-0.1	0.5	-0.3	-0.2	0.2	26.6	24.0	0.3
JER EffectiveNP 1	-0.9	-0.1	0.1	-1.5	-0.9	100.0	-1.8	-2.6	-0.4	2.0	0.3	-3.8	1.8	1.3	13.7	7.7	14.3	6.1	-7.2	-15.6	-20.3	11.7	-14.0
JES flavour composition	0.1	0.2	-0.2	-0.2	-0.5	-1.8	100.0	-9.9	0.2	-2.5	0.3	4.2	-0.1	2.7	4.1	1.1	4.5	3.4	-5.2	-3.8	-34.5	3.9	-2.7
JES pileup p topology	0.5	0.4	-0.1	-0.3	-0.7	-2.6	-9.9	100.0	0.4	-2.3	0.5	2.4	-0.2	4.6	3.3	-0.5	3.9	1.3	-5.3	-2.0	-35.7	-23.0	0.7
Muon isol. eff. (syst)	-0.1	-0.0	-0.0	0.0	0.1	-0.4	0.2	0.4	100.0	0.1	-0.0	0.3	0.0	-0.5	0.1	0.4	0.1	0.6	-0.0	-0.5	-9.8	-23.9	-1.1
Pile-up rew.	0.2	0.1	-0.2	-0.4	-0.2	2.0	-2.5	-2.3	0.1	100.0	0.1	-1.2	0.3	1.3	1.1	-0.2	1.3	-1.6	0.7	1.9	-13.7	-26.7	2.2
Luminosity	-0.1	-0.0	-0.0	0.0	0.1	0.3	0.3	0.5	-0.0	0.1	100.0	0.2	-0.0	-0.4	-0.1	0.2	-0.2	0.3	0.1	-0.2	-8.0	-21.6	-0.5
Diboson NLO gen. + PS + had.	0.5	0.2	-0.0	-0.9	-0.4	-3.8	4.2	2.4	0.3	-1.2	0.2	100.0	1.1	2.9	1.8	-0.5	2.0	-8.2	7.8	4.4	18.4	-2.9	20.3
Diboson NNPDF30 37	0.0	0.0	0.1	0.2	0.1	1.8	-0.1	-0.2	0.0	0.3	-0.0	1.1	100.0	-0.2	-0.5	-0.0	-0.5	0.6	-0.9	0.2	-26.6	-0.0	0.2
Tau fake norm.	-0.7	-0.4	-0.0	0.3	0.5	1.3	2.7	4.6	-0.5	1.3	-0.4	2.9	-0.2	100.0	-1.1	1.9	-1.5	3.7	0.7	-3.2	-15.9	-11.5	-7.8
tW (DR vs. DS)	0.3	0.0	-0.0	0.7	0.4	13.7	4.1	3.3	0.1	1.1	-0.1	1.8	-0.5	-1.1	100.0	-4.9	-8.3	-1.9	2.9	3.8	-16.2	29.9	-0.1
tW NLO gen.	0.6	0.2	-0.1	0.2	-0.1	7.7	1.1	-0.5	0.4	-0.2	0.2	-0.5	-0.0	1.9	-4.9	100.0	-4.8	-3.6	1.6	4.6	-4.3	30.8	0.4
tW PS + had.	0.2	-0.0	-0.0	0.8	0.5	14.3	4.5	3.9	0.1	1.3	-0.2	2.0	-0.5	-1.5	-8.3	-4.8	100.0	-1.7	3.1	3.7	-17.7	27.9	-0.1
tt̄ NLO gen. + PS + had.	0.9	0.4	-0.0	-0.5	-0.3	6.1	3.4	1.3	0.6	-1.6	0.3	-8.2	0.6	3.7	-1.9	-3.6	-1.7	100.0	6.0	9.9	-5.7	-6.3	17.4
tt̄ FSR	-0.1	0.1	0.2	0.2	-0.2	-7.2	-5.2	-5.3	-0.0	0.7	0.1	7.8	-0.9	0.7	2.9	1.6	3.1	6.0	100.0	-1.1	17.7	2.4	-30.1
tt̄ NLO gen.	-1.1	-0.4	-0.1	0.2	0.2	-15.6	-3.8	-2.0	-0.5	1.9	-0.2	4.4	0.2	-3.2	3.8	4.6	3.7	9.9	-1.1	100.0	8.6	3.9	8.4
k(Z+jets)	-7.2	-6.5	15.4	23.6	26.6	-20.3	-34.5	-35.7	-9.8	-13.7	-8.0	18.4	-26.6	-15.9	-16.2	-4.3	-17.7	-5.7	17.7	8.6	100.0	17.6	11.7
k(tt̄)	-24.5	-21.2	28.0	0.1	24.0	11.7	3.9	-23.0	-23.9	-26.7	-21.6	-2.9	-0.0	-11.5	29.9	30.8	27.9	-6.3	2.4	3.9	17.6	100.0	-6.7
μ(thq)	-1.5	-0.7	0.3	0.0	0.3	-14.0	-2.7	0.7	-1.1	2.2	-0.5	20.3	0.2	-7.8	-0.1	0.4	-0.1	17.4	-30.1	8.4	11.7	-6.7	100.0
Electron ID eff.	Electron isol. eff. (syst)	b-tag Eigenvar. 0	c-tag Eigenvar. 0	light-tag Eigenvar. 0	JER EffectiveNP 1	JES flavour composition	JES pileup p topology	Muon isol. eff. (syst)	Pile-up rew.	Luminosity	Diboson NLO gen. + PS + had.	Diboson NNPDF30 37	Tau fake norm.	tW (DR vs. DS)	tW NLO gen.	tW PS + had.	tt̄ NLO gen. + PS + had.	tt̄ FSR	tt̄ NLO gen.	k(Z+jets)	k(tt̄)	μ(thq)	