	EG_SCALE_ALL	JET_Flavor_Composition	JET_Pileup_OffsetNPV	JET_Pileup_RhoTopology	Photon_effIso	efakeSF_	hfakeSF_	lepfakeSF_	lepfakeSF_var2	tγ(t channel) Norm	ttbar_pt_hard	tty_dec_Herwig7	tty(dec) Norm	tty_prod_Herwig7	tty_prod_muR	tty_prod_var3c	highpt_uncalib_bjet	highpt_uncalib_cjet	highpt_uncalib_ljet	Wtγ Norm	Wγ Norm	Zγ Norm	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5	Bin 6	Bin 7	Bin 8	Bin 9	Bin 10
EG_SCALE_ALL	100.0	-0.1	0.5	-0.5	0.1	-0.6	-2.4	-0.4	0.0	-0.6	1.4	3.0	-3.1	1.5	-0.5	0.2	-0.1	-0.4	-1.4	-1.2	-1.4	-1.5	2.8	0.9	-0.3	-0.6	-4.6	-6.1	-6.3	-13.5	-16.4	-27.9
JET_Flavor_Composition	-0.1	100.0	-1.3	-5.1	2.3	2.1	-5.2	-1.7	-0.5	-0.1	-1.1	-4.1	10.3	0.9	1.7	-4.3	-0.8	-2.2	-5.7	-3.7	-16.1	-8.6	-32.5	-33.0	-33.1	-32.9	-33.0	-32.0	-32.2	-27.7	-25.1	-17.5
JET_Pileup_OffsetNPV	0.5	-1.3	100.0	-2.1	-0.6	-0.6	-1.7	-0.7	1.4	-0.2	0.4	1.6	9.8	-5.5	-2.0	0.0	-0.5	-0.6	-1.6	-2.0	-1.7	-1.0	-14.2	-15.5	-15.9	-15.5	-15.3	-13.6	-13.4	-12.7	-10.7	-8.5
JET_Pileup_RhoTopology	-0.5	-5.1	-2.1	100.0	1.3	1.7	-2.5	-1.7	1.2	-0.2	1.2	-0.3	7.0	-6.1	-3.3	-3.2	-0.5	-1.6	-3.6	-4.1	-11.4	-5.6	-33.5	-34.4	-34.5	-35.7	-34.3	-32.2	-33.6	-29.5	-26.8	-22.1
Photon_effIso	0.1	2.3	-0.6	1.3	100.0	-0.8	-4.8	0.7	-0.1	1.0	1.1	2.4	1.3	-3.9	1.1	-0.7	-0.5	-0.1	-1.7	1.3	5.5	3.2	-17.2	-14.2	-13.4	-13.0	-13.5	-12.5	-11.2	-10.4	-10.8	-18.7
efakeSF_	-0.6	2.1	-0.6	1.7	-0.8	100.0	-57.0	-0.5	-4.9	0.5	1.9	5.6	0.2	-7.5	1.5	7.0	1.0	0.9	0.9	1.2	-1.7	0.1	5.9	0.3	2.3	-1.7	-4.7	-5.4	-3.1	-1.4	4.8	6.9
hfakeSF_	-2.4	-5.2	-1.7	-2.5	-4.8	-57.0	100.0	-8.6	-5.1	-18.5	18.0	8.0	8.0	-29.6	23.2	4.4	4.7	3.0	-3.2	-2.6	-0.0	-14.4	-24.8	-18.5	-25.2	-20.8	-13.8	-11.2	-13.5	-8.9	-12.8	-15.7
lepfakeSF_	-0.4	-1.7	-0.7	-1.7	0.7	-0.5	-8.6	100.0	-6.9	-0.6	0.5	-10.2	15.6	3.6	-2.7	0.3	-1.2	-1.3	-4.5	-1.8	-5.5	-5.1	-2.2	-2.8	1.5	0.2	-1.1	-1.4	8.2	-8.2	0.4	4.8
lepfakeSF_var2	0.0	-0.5	1.4	1.2	-0.1	-4.9	-5.1	-6.9	100.0	1.1	-1.8	2.9	-15.7	-1.0	3.7	2.0	0.6	0.7	1.1	1.4	-3.7	1.3	12.8	12.5	10.8	13.0	12.7	13.9	3.8	25.8	13.6	3.9
tγ(t channel) Norm	-0.6	-0.1	-0.2	-0.2	1.0	0.5	-18.5	-0.6	1.1	100.0	-0.8	4.5	4.3	0.6	4.2	-1.9	0.4	-0.4	-1.9	0.8	-0.3	-2.2	-6.6	-5.8	-3.6	-3.6	-3.9	-3.1	-1.1	-1.6	0.7	1.9
ttbar_pt_hard	1.4	-1.1	0.4	1.2	1.1	1.9	18.0	0.5	-1.8	-0.8	100.0	-20.1	-17.5	-4.1	0.6	3.2	1.3	2.4	11.3	-2.8	-9.5	-0.7	4.2	6.4	4.8	3.1	2.4	0.7	0.6	-0.5	-4.3	-7.7
tty_dec_Herwig7	3.0	-4.1	1.6	-0.3	2.4	5.6	8.0	-10.2	2.9	4.5	-20.1	100.0	35.9	4.0	6.4	-8.8	0.9	2.2	10.1	1.6	-5.3	-4.0	-24.2	-29.9	-31.2	-28.5	-24.9	-21.5	-23.7	-18.1	-12.9	-9.5
tty(dec) Norm	-3.1	10.3	9.8	7.0	1.3	0.2	8.0	15.6	-15.7	4.3	-17.5	35.9	100.0	14.9	7.6	40.3	2.1	4.1	6.2	-2.1	-7.3	-4.0	-77.5	-78.2	-70.8	-65.8	-61.1	-52.0	-34.8	-27.7	-29.9	-12.7
tty_prod_Herwig7	1.5	0.9	-5.5	-6.1	-3.9	-7.5	-29.6	3.6	-1.0	0.6	-4.1	4.0	14.9	100.0	-7.0	-5.5	-4.5	-3.4	-18.5	3.0	1.2	7.1	6.6	4.5	9.9	9.7	6.1	5.8	19.6	10.9	5.0	30.5
tty_prod_muR	-0.5	1.7	-2.0	-3.3	1.1	1.5	23.2	-2.7	3.7	4.2	0.6	6.4	7.6	-7.0	100.0	-2.8	-2.6	2.4	3.8	0.2	0.3	-0.8	-16.5	-15.0	-17.1	-17.1	-15.5	-13.0	-14.5	-11.6	-13.6	-11.0
tty_prod_var3c	0.2	-4.3	0.0	-3.2	-0.7	7.0	4.4	0.3	2.0	-1.9	3.2	-8.8	40.3	-5.5	-2.8	100.0	2.2	2.4	7.6	1.0	5.1	-2.5	-25.0	-23.2	-17.5	-14.3	-19.4	-21.3	2.3	13.1	-6.3	3.0
highpt_uncalib_bjet	-0.1	-0.8	-0.5	-0.5	-0.5	1.0	4.7	-1.2	0.6	0.4	1.3	0.9	2.1	-4.5	-2.6	2.2	100.0	-4.5	-18.3	-0.1	-6.6	0.6	-1.8	-1.2	-1.2	-1.4	-0.1	-0.4	-0.0	1.3	0.6	-5.9
highpt_uncalib_cjet	-0.4	-2.2	-0.6	-1.6	-0.1	0.9	3.0	-1.3	0.7	-0.4	2.4	2.2	4.1	-3.4	-2.6	2.4	-4.5	100.0	-19.1	-2.2	-10.0	-1.5	-2.2	-1.9	-2.3	-2.0	-2.7	-0.2	-1.4	-1.7	-3.2	-7.8
highpt_uncalib_ljet	-1.4	-5.7	-1.6	-3.6	-1.7	0.9	-3.2	-4.5	1.1	-1.9	11.3	10.1	6.2	-18.5	3.8	7.6	-18.3	-19.1	100.0	-3.8	-35.3	-2.7	2.1	0.9	1.0	-1.4	-0.3	-3.3	-6.2	-3.3	-7.8	-25.8
Wtγ Norm	-1.2	-3.7	-2.0	-4.1	1.3	1.2	-2.6	-1.8	1.4	0.8	-2.8	1.6	-2.1	3.0	0.2	1.0	-0.1	-2.2	-3.8	100.0	-10.7	-8.7	-5.7	-7.2	-8.1	-10.6	-11.4	-13.4	-12.2	-14.2	-15.0	-13.5
Wγ Norm	-1.4	-16.1	-1.7	-11.4	5.5	-1.7	-0.0	-5.5	-3.7	-0.3	-9.5	-5.3	-7.3	1.2	0.3	5.1	-6.6	-10.0	-35.3	-10.7	100.0	-21.4	14.2	14.7	12.6	14.6	12.9	12.6	13.4	8.6	11.3	15.2
Zγ Norm	-1.5	-8.6	-1.0	-5.6	3.2	0.1	-14.4	-5.1	1.3	-2.2	-0.7	-4.0	-4.0	7.1	-0.8	-2.5	0.6	-1.5	-2.7	-8.7	-21.4	100.0	9.5	9.0	15.5	13.9	14.4	17.7	14.3	15.8	13.1	12.8
tty_pt Unfolded Truth Bin 1	2.8	-32.5	-14.2	-33.5	-17.2	5.9	-24.8	-2.2	12.8	-6.6	4.2	-24.2	-77.5	6.6	-16.5	-25.0	-1.8	-2.2	2.1	-5.7	14.2	9.5	100.0	97.1	93.6	90.5	84.4	75.3	65.5	56.3	55.7	41.5
tty_pt Unfolded Truth Bin 2	0.9	-33.0	-15.5	-34.4	-14.2	0.3	-18.5	-2.8	12.5	-5.8	6.4	-29.9	-78.2	4.5	-15.0	-23.2	-1.2	-1.9	0.9	-7.2	14.7	9.0	97.1	100.0	93.4	91.0	85.3	76.2	67.0	58.0	56.5	41.7
tty_pt Unfolded Truth Bin 3	-0.3	-33.1	-15.9	-34.5	-13.4	2.3	-25.2	1.5	10.8	-3.6	4.8	-31.2	-70.8	9.9	-17.1	-17.5	-1.2	-2.3	1.0	-8.1	12.6	15.5	93.6	93.4	100.0	88.7	83.6	74.8	68.4	59.0	56.8	44.3
tty_pt Unfolded Truth Bin 4	-0.6	-32.9	-15.5	-35.7	-13.0	-1.7	-20.8	0.2	13.0	-3.6	3.1	-28.5	-65.8	9.7	-17.1	-14.3	-1.4	-2.0	-1.4	-10.6	14.6	13.9	90.5	91.0	88.7	100.0	81.0	74.3	68.3	60.6	57.5	45.7
tty_pt Unfolded Truth Bin 5	-4.6	-33.0	-15.3	-34.3	-13.5	-4.7	-13.8	-1.1	12.7	-3.9	2.4	-24.9	-61.1	6.1	-15.5	-19.4	-0.1	-2.7	-0.3	-11.4	12.9	14.4	84.4	85.3	83.6	81.0	100.0	69.5	64.6	57.5	55.8	43.7
tty_pt Unfolded Truth Bin 6	-6.1	-32.0	-13.6	-32.2	-12.5	-5.4	-11.2	-1.4	13.9	-3.1	0.7	-21.5	-52.0	5.8	-13.0	-21.3	-0.4	-0.2	-3.3	-13.4	12.6	17.7	75.3	76.2	74.8	74.3	69.5	100.0	56.2	54.2	52.9	41.9
tty_pt Unfolded Truth Bin 7	-6.3	-32.2	-13.4	-33.6	-11.2	-3.1	-13.5	8.2	3.8	-1.1	0.6	-23.7	-34.8	19.6	-14.5	2.3	-0.0	-1.4	-6.2	-12.2	13.4	14.3	65.5	67.0	68.4	68.3	64.6	56.2	100.0	51.9	50.3	47.3
tty_pt Unfolded Truth Bin 8	-13.5	-27.7	-12.7	-29.5	-10.4	-1.4	-8.9	-8.2	25.8	-1.6	-0.5	-18.1	-27.7	10.9	-11.6	13.1	1.3	-1.7	-3.3	-14.2	8.6	15.8	56.3	58.0	59.0	60.6	57.5	54.2	51.9	100.0	47.5	45.9
tty_pt Unfolded Truth Bin 9	-16.4	-25.1	-10.7	-26.8	-10.8	4.8	-12.8	0.4	13.6	0.7	-4.3	-12.9	-29.9	5.0	-13.6	-6.3	0.6	-3.2	-7.8	-15.0	11.3	13.1	55.7	56.5	56.8	57.5	55.8	52.9	50.3	47.5	100.0	42.5
tty_pt Unfolded Truth Bin 10	-27.9	-17.5	-8.5	-22.1	-18.7	6.9	-15.7	4.8	3.9	1.9	-7.7	-9.5	-12.7	30.5	-11.0	3.0	-5.9	-7.8	-25.8	-13.5	15.2	12.8	41.5	41.7	44.3	45.7	43.7	41.9	47.3	45.9	42.5	100.0