

# W+Jets background: Central + inverted VBF selections (2017 results)

Process	Data	DY+Jets	EWK W+2jets	EWK Z+2jets	QCD	SingleTop	$V_\gamma + jets$	VBF Higgs	VV	VVV	W+Jets	$t\bar{t}$	$t\bar{t}+X$
NRcoVertex	373847808.0	261605139.2 ± 5268.9	1903254.7 ± 51.9	329692.8 ± 15.5	1249394286917.3 ± 6337355.9	11625595.3 ± 237.3	3681727.3 ± 476.6	649893.9 ± 171.7	5387634.1 ± 141.2	16556.6 ± 6.8	2547176496.8 ± 55453.0	31942411.0 ± 571.6	82155.2 ± 29.0
NRcoTriggers1	211838858.0	1275204.5 ± 1344.1	160698.1 ± 178.3	25059.6 ± 47.5	48592047.3 ± 355976.1	298565.7 ± 197.4	47291.7 ± 96.8	649.3 ± 7.2	157732.2 ± 157.3	2272.3 ± 7.5	14665414.6 ± 15957.0	1950103.4 ± 461.7	10518.9 ± 12.0
NRcoMuon1	23462.0	1869.5 ± 52.0	200.3 ± 6.5	16.8 ± 1.6	748.1 ± 351.6	1507.0 ± 15.6	66.4 ± 3.8	0.0 ± 0.0	1524.0 ± 16.7	31.8 ± 0.9	32784.5 ± 907.2	16106.1 ± 34.5	144.4 ± 1.2
NRcoMuon2	22552.0	1343.1 ± 49.8	200.1 ± 6.5	7.5 ± 1.0	747.1 ± 351.6	1444.4 ± 15.1	50.7 ± 3.4	0.0 ± 0.0	1413.0 ± 16.1	27.0 ± 0.9	32780.5 ± 907.2	15476.0 ± 33.9	133.2 ± 1.2
NRcoElectron1	21655.0	1335.4 ± 49.8	196.2 ± 6.5	7.5 ± 1.0	746.6 ± 351.6	1380.6 ± 14.7	49.5 ± 3.3	0.0 ± 0.0	1342.3 ± 15.7	25.6 ± 0.9	32711.2 ± 907.2	14449.2 ± 33.0	123.5 ± 1.2
NRcoTau1	21107.0	1332.4 ± 49.8	191.8 ± 6.4	7.5 ± 1.0	746.6 ± 351.6	1330.3 ± 14.4	48.9 ± 3.3	0.0 ± 0.0	1280.7 ± 15.3	24.6 ± 0.8	32697.6 ± 907.2	14109.2 ± 32.7	119.9 ± 1.1
METCut	3936.0	50.0 ± 5.0	43.6 ± 3.0	1.1 ± 0.3	93.7 ± 21.4	231.7 ± 6.3	10.1 ± 1.5	0.0 ± 0.0	394.2 ± 8.3	9.6 ± 0.5	1483.4 ± 38.2	2128.0 ± 12.6	33.5 ± 0.5
NRcoJet1	3936.0	50.0 ± 5.0	43.6 ± 3.0	1.1 ± 0.3	93.7 ± 21.4	231.7 ± 6.3	10.1 ± 1.5	0.0 ± 0.0	394.2 ± 8.3	9.6 ± 0.5	1483.4 ± 38.2	2128.0 ± 12.6	33.5 ± 0.5
NRcoJet2	3936.0	50.0 ± 5.0	43.6 ± 3.0	1.1 ± 0.3	93.7 ± 21.4	231.7 ± 6.3	10.1 ± 1.5	0.0 ± 0.0	394.2 ± 8.3	9.6 ± 0.5	1483.4 ± 38.2	2128.0 ± 12.6	33.5 ± 0.5
NRcoBjet	2586.0	48.6 ± 4.9	37.7 ± 2.8	0.9 ± 0.2	79.4 ± 20.3	112.7 ± 4.3	9.6 ± 1.5	0.0 ± 0.0	379.3 ± 8.2	9.0 ± 0.5	1438.8 ± 37.8	883.2 ± 8.4	13.5 ± 0.4
NDJetCombinations	2477.0	46.9 ± 4.9	33.0 ± 2.6	0.8 ± 0.2	72.9 ± 19.4	108.6 ± 4.3	8.7 ± 1.4	0.0 ± 0.0	367.7 ± 8.0	8.9 ± 0.5	1406.7 ± 37.6	820.7 ± 8.1	12.8 ± 0.3

$$SF = \frac{N_{Data} - N_{non-W+Jets}}{N_{W+Jets}}$$

$$SF^{CR1} = 0.71 \pm 0.04$$