

Z+Jets background: Central + VBF selections (2016 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	786628796.0	212729737.9 ± 3624.0	1654806.1 ± 20.1	286417.2 ± 8.1	9933558948581.1 ± 106991432.1	10375606.0 ± 165.5	3429660.4 ± 537.0	2915294.8 ± 717.5	4943962.6 ± 86.0	13937.5 ± 6.5	2205652570.8 ± 44062.1	23226042.7 ± 332.6	65613.8 ± 21.1
NRcoTriggers1	446859141.0	46167317.7 ± 6482.2	376917.4 ± 225.0	47251.1 ± 67.5	74841783.8 ± 8616860.8	893389.3 ± 316.4	798532.6 ± 432.5	2732.3 ± 122.3	588343.1 ± 250.5	2322.9 ± 7.1	312494150.4 ± 81104.9	3133246.9 ± 442.4	10025.0 ± 9.8
NRcoMuon1	16492113.0	15908766.7 ± 4133.1	27.8 ± 2.2	19170.5 ± 48.8	34960.0 ± 13156.1	13218.0 ± 50.3	109082.1 ± 173.3	69.4 ± 0.3	40306.0 ± 64.2	220.3 ± 2.2	1586.5 ± 122.6	104376.1 ± 64.4	614.6 ± 1.9
NRcoMuon2	16492113.0	15908766.7 ± 4133.1	27.8 ± 2.2	19170.5 ± 48.8	34960.0 ± 13156.1	13218.0 ± 50.3	109082.1 ± 173.3	69.4 ± 0.3	40306.0 ± 64.2	220.3 ± 2.2	1586.5 ± 122.6	104376.1 ± 64.4	614.6 ± 1.9
NDiMuonCombinations	15967270.0	15607282.5 ± 4099.3	7.4 ± 1.2	18080.2 ± 47.6	13870.9 ± 12785.8	4852.0 ± 30.4	102499.2 ± 168.1	57.6 ± 0.1	30073.4 ± 54.8	134.9 ± 1.6	609.4 ± 89.7	40092.7 ± 40.1	284.8 ± 1.1
NRcoElectron1	15941745.0	15581350.5 ± 4096.3	7.4 ± 1.2	17998.6 ± 47.5	13870.9 ± 12785.8	4819.5 ± 30.3	99088.1 ± 165.3	50.1 ± 0.1	29501.1 ± 54.6	129.9 ± 1.5	607.0 ± 89.7	39728.2 ± 39.9	270.6 ± 1.1
NRcoTau1	15930231.0	15581350.1 ± 4096.3	7.4 ± 1.2	17998.6 ± 47.5	13870.9 ± 12785.8	4817.8 ± 30.3	99088.1 ± 165.3	50.1 ± 0.1	29462.1 ± 54.6	129.1 ± 1.5	607.0 ± 89.7	39723.3 ± 39.9	269.7 ± 1.1
METCut	15930231.0	15581350.1 ± 4096.3	7.4 ± 1.2	17998.6 ± 47.5	13870.9 ± 12785.8	4817.8 ± 30.3	99088.1 ± 165.3	50.1 ± 0.1	29462.1 ± 54.6	129.1 ± 1.5	607.0 ± 89.7	39723.3 ± 39.9	269.7 ± 1.1
NRcoJet1	1013487.0	1010710.9 ± 864.1	3.4 ± 0.8	10972.0 ± 38.1	492.0 ± 338.2	1888.3 ± 18.9	19358.6 ± 73.3	11.3 ± 0.1	12035.8 ± 36.7	101.5 ± 1.3	160.5 ± 28.0	22423.2 ± 30.4	235.4 ± 1.0
NRcoJet2	199807.0	202146.6 ± 277.0	0.6 ± 0.3	5224.9 ± 26.9	247.7 ± 240.0	459.4 ± 9.4	3934.2 ± 32.4	3.0 ± 0.0	3961.2 ± 20.3	62.1 ± 1.0	26.0 ± 3.2	7958.7 ± 18.3	162.0 ± 0.8
NRcoBJet	191784.0	198283.3 ± 275.4	0.6 ± 0.3	5162.2 ± 26.7	247.7 ± 240.0	316.5 ± 7.8	3869.1 ± 32.1	3.0 ± 0.0	3845.7 ± 19.8	59.1 ± 1.0	25.0 ± 3.1	4373.9 ± 13.7	74.7 ± 0.5
NDiJetCombinations	4939.0	4284.7 ± 40.8	0.0 ± 0.0	888.7 ± 11.3	0.0 ± 0.0	11.9 ± 1.5	141.1 ± 4.8	0.7 ± 0.0	99.2 ± 2.9	2.3 ± 0.2	0.5 ± 0.3	155.4 ± 2.6	3.1 ± 0.1

$$SF = \frac{N_{Data} - N_{non-DY+Jets}}{N_{DY+Jets} \cdot SF^{CR3}}$$

$$SF^{CR2} = 0.89 \pm 0.02$$