

August 26, 2010

Method2 STST

CEM Electrons

Process	1jet	2jets	3jets	4jets	5jets
All Pretag Candidates	336241.00 $\pm$ 0.00	58797.00 $\pm$ 0.00	10261.00 $\pm$ 0.00	2281.00 $\pm$ 0.00	565.00 $\pm$ 0.00
Total Pretag Non-W (after MET cut)	59494.21 $\pm$ 23797.68	17898.26 $\pm$ 7159.30	3472.65 $\pm$ 1389.06	599.52 $\pm$ 239.81	129.87 $\pm$ 51.95
Total Pretag ww (after MET cut)	1030.98 $\pm$ 87.59	1110.20 $\pm$ 94.32	216.05 $\pm$ 18.41	37.38 $\pm$ 3.24	6.55 $\pm$ 0.62
Total Pretag wz (after MET cut)	133.49 $\pm$ 14.09	162.76 $\pm$ 17.18	37.51 $\pm$ 3.97	6.57 $\pm$ 0.71	1.26 $\pm$ 0.15
Total Pretag zz (after MET cut)	5.24 $\pm$ 0.77	5.02 $\pm$ 0.74	2.99 $\pm$ 0.44	0.75 $\pm$ 0.11	0.16 $\pm$ 0.03
Total Pretag stops (after MET cut)	39.05 $\pm$ 3.54	91.63 $\pm$ 8.29	28.61 $\pm$ 2.59	6.19 $\pm$ 0.57	1.28 $\pm$ 0.12
Total Pretag stopt (after MET cut)	119.60 $\pm$ 13.06	146.02 $\pm$ 15.94	42.33 $\pm$ 4.63	8.23 $\pm$ 0.91	1.34 $\pm$ 0.16
Total Pretag zlf (after MET cut)	9981.98 $\pm$ 872.20	2670.19 $\pm$ 233.32	521.80 $\pm$ 45.60	89.17 $\pm$ 7.80	14.80 $\pm$ 1.30
Total Pretag top (after MET cut)	67.18 $\pm$ 5.85	353.81 $\pm$ 30.69	702.61 $\pm$ 60.91	660.16 $\pm$ 57.24	218.07 $\pm$ 18.93
Total Pretag wh115 (after MET cut)	5.52 $\pm$ 0.33	12.85 $\pm$ 0.77	3.48 $\pm$ 0.21	0.63 $\pm$ 0.04	0.11 $\pm$ 0.01
Total Pretag wh100 (after MET cut)	11.99 $\pm$ 0.72	20.78 $\pm$ 1.25	4.91 $\pm$ 0.30	0.82 $\pm$ 0.05	0.13 $\pm$ 0.01
Total Pretag wh105 (after MET cut)	9.36 $\pm$ 0.56	18.01 $\pm$ 1.08	4.46 $\pm$ 0.27	0.78 $\pm$ 0.05	0.12 $\pm$ 0.01
Total Pretag wh110 (after MET cut)	7.14 $\pm$ 0.43	15.16 $\pm$ 0.91	3.84 $\pm$ 0.23	0.66 $\pm$ 0.04	0.11 $\pm$ 0.01
Total Pretag wh120 (after MET cut)	4.12 $\pm$ 0.25	10.43 $\pm$ 0.63	2.96 $\pm$ 0.18	0.54 $\pm$ 0.03	0.09 $\pm$ 0.01
Total Pretag wh125 (after MET cut)	3.01 $\pm$ 0.18	8.21 $\pm$ 0.49	2.43 $\pm$ 0.15	0.44 $\pm$ 0.03	0.07 $\pm$ 0.01
Total Pretag wh130 (after MET cut)	2.11 $\pm$ 0.13	6.24 $\pm$ 0.38	1.93 $\pm$ 0.12	0.37 $\pm$ 0.02	0.06 $\pm$ 0.00
Total Pretag wh135 (after MET cut)	1.41 $\pm$ 0.09	4.51 $\pm$ 0.27	1.47 $\pm$ 0.09	0.28 $\pm$ 0.02	0.05 $\pm$ 0.00
Total Pretag wh140 (after MET cut)	0.92 $\pm$ 0.06	3.11 $\pm$ 0.19	1.04 $\pm$ 0.06	0.21 $\pm$ 0.01	0.03 $\pm$ 0.00
Total Pretag wh145 (after MET cut)	0.56 $\pm$ 0.03	2.04 $\pm$ 0.12	0.70 $\pm$ 0.04	0.14 $\pm$ 0.01	0.03 $\pm$ 0.00
Total Pretag wh150 (after MET cut)	0.32 $\pm$ 0.02	1.23 $\pm$ 0.07	0.44 $\pm$ 0.03	0.09 $\pm$ 0.01	0.02 $\pm$ 0.00
Total Pretag wh120L (after MET cut)	4.12 $\pm$ 0.25	10.48 $\pm$ 0.63	2.94 $\pm$ 0.18	0.52 $\pm$ 0.03	0.08 $\pm$ 0.01
Total Pretag wh120M (after MET cut)	3.89 $\pm$ 0.23	10.06 $\pm$ 0.61	3.17 $\pm$ 0.19	0.65 $\pm$ 0.04	0.13 $\pm$ 0.01
Total Pretag MC (after MET cut)	11377.51 $\pm$ 933.94	4539.63 $\pm$ 329.17	1551.91 $\pm$ 109.12	808.44 $\pm$ 64.02	243.47 $\pm$ 20.04
Total Pretag Wbb (after MET cut)	3675.02 $\pm$ 1150.78	1373.86 $\pm$ 493.16	344.06 $\pm$ 137.97	84.38 $\pm$ 34.88	22.57 $\pm$ 9.42
Total Pretag Wcc (after MET cut)	9384.64 $\pm$ 2938.67	2913.26 $\pm$ 1045.75	697.60 $\pm$ 279.74	159.60 $\pm$ 65.97	41.37 $\pm$ 17.27
Total Pretag Wcj (after MET cut)	17802.22 $\pm$ 5574.53	3219.13 $\pm$ 1155.54	504.22 $\pm$ 202.19	82.52 $\pm$ 34.11	17.42 $\pm$ 7.27
Total Pretag Mistags (after MET cut)	234507.40 $\pm$ 24749.51	28852.87 $\pm$ 7444.43	3690.56 $\pm$ 1479.16	546.54 $\pm$ 271.61	110.31 $\pm$ 62.34
Total Pretag HF	30861.88 $\pm$ 6733.22	7506.24 $\pm$ 2013.83	1545.88 $\pm$ 496.52	326.51 $\pm$ 110.29	81.35 $\pm$ 28.03
Total Pretag Corrected	265369.28 $\pm$ 23816.00	36359.12 $\pm$ 7166.87	5236.44 $\pm$ 1393.34	873.05 $\pm$ 248.21	191.66 $\pm$ 55.68
Total LF Pretag Corrected	234507.40 $\pm$ 24749.51	28852.87 $\pm$ 7444.43	3690.56 $\pm$ 1479.16	546.54 $\pm$ 271.61	110.31 $\pm$ 62.34
Tagged ww	0.02 $\pm$ 0.00	0.36 $\pm$ 0.08	0.28 $\pm$ 0.05	0.22 $\pm$ 0.04	0.06 $\pm$ 0.01
Tagged wz	0.47 $\pm$ 0.10	3.14 $\pm$ 0.69	0.75 $\pm$ 0.16	0.12 $\pm$ 0.02	0.03 $\pm$ 0.01
Tagged zz	0.01 $\pm$ 0.00	0.07 $\pm$ 0.02	0.08 $\pm$ 0.02	0.04 $\pm$ 0.01	0.01 $\pm$ 0.00
Tagged stops	0.77 $\pm$ 0.16	12.20 $\pm$ 2.59	4.35 $\pm$ 0.91	1.01 $\pm$ 0.21	0.23 $\pm$ 0.05
Tagged stopt	0.58 $\pm$ 0.13	3.67 $\pm$ 0.81	3.94 $\pm$ 0.87	1.11 $\pm$ 0.24	0.23 $\pm$ 0.05
Tagged zlf	0.26 $\pm$ 0.06	1.35 $\pm$ 0.30	1.51 $\pm$ 0.33	0.52 $\pm$ 0.11	0.18 $\pm$ 0.04
Tagged top	1.31 $\pm$ 0.27	32.10 $\pm$ 6.76	91.37 $\pm$ 18.79	117.48 $\pm$ 23.75	41.53 $\pm$ 8.39
Tagged wh115	0.14 $\pm$ 0.03	1.70 $\pm$ 0.34	0.52 $\pm$ 0.10	0.10 $\pm$ 0.02	0.02 $\pm$ 0.00
Tagged wh100	0.33 $\pm$ 0.07	2.64 $\pm$ 0.53	0.69 $\pm$ 0.14	0.12 $\pm$ 0.02	0.02 $\pm$ 0.00
Tagged wh105	0.27 $\pm$ 0.05	2.37 $\pm$ 0.48	0.63 $\pm$ 0.13	0.12 $\pm$ 0.02	0.02 $\pm$ 0.00
Tagged wh110	0.20 $\pm$ 0.04	2.00 $\pm$ 0.40	0.56 $\pm$ 0.11	0.10 $\pm$ 0.02	0.02 $\pm$ 0.00
Tagged wh120	0.10 $\pm$ 0.02	1.41 $\pm$ 0.28	0.44 $\pm$ 0.09	0.09 $\pm$ 0.02	0.01 $\pm$ 0.00
Tagged wh125	0.07 $\pm$ 0.01	1.09 $\pm$ 0.22	0.36 $\pm$ 0.07	0.08 $\pm$ 0.01	0.01 $\pm$ 0.00
Tagged wh130	0.05 $\pm$ 0.01	0.85 $\pm$ 0.17	0.29 $\pm$ 0.06	0.06 $\pm$ 0.01	0.01 $\pm$ 0.00
Tagged wh135	0.03 $\pm$ 0.01	0.61 $\pm$ 0.12	0.22 $\pm$ 0.04	0.05 $\pm$ 0.01	0.01 $\pm$ 0.00
Tagged wh140	0.02 $\pm$ 0.00	0.43 $\pm$ 0.09	0.16 $\pm$ 0.03	0.03 $\pm$ 0.01	0.01 $\pm$ 0.00
Tagged wh145	0.01 $\pm$ 0.00	0.28 $\pm$ 0.06	0.11 $\pm$ 0.02	0.02 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh150	0.01 $\pm$ 0.00	0.17 $\pm$ 0.03	0.07 $\pm$ 0.01	0.01 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh120L	0.10 $\pm$ 0.02	1.42 $\pm$ 0.29	0.44 $\pm$ 0.09	0.08 $\pm$ 0.02	0.01 $\pm$ 0.00
Tagged wh120M	0.09 $\pm$ 0.02	1.31 $\pm$ 0.27	0.45 $\pm$ 0.09	0.11 $\pm$ 0.02	0.02 $\pm$ 0.00
Raw Mis-tags(info)	0.82 $\pm$ 0.39	3.35 $\pm$ 1.36	2.77 $\pm$ 1.01	1.18 $\pm$ 0.42	0.58 $\pm$ 0.21
Tagged Wbb	26.13 $\pm$ 9.44	63.00 $\pm$ 25.31	21.34 $\pm$ 9.29	6.36 $\pm$ 2.82	2.24 $\pm$ 1.00
Tagged Wcc	0.87 $\pm$ 0.31	3.85 $\pm$ 1.49	2.19 $\pm$ 0.92	0.94 $\pm$ 0.41	0.44 $\pm$ 0.19
Tagged Wcj	1.65 $\pm$ 0.59	4.26 $\pm$ 1.64	1.58 $\pm$ 0.67	0.48 $\pm$ 0.21	0.18 $\pm$ 0.08
Tagged Total HF	28.65 $\pm$ 10.28	71.11 $\pm$ 27.70	25.11 $\pm$ 10.31	7.78 $\pm$ 3.20	2.87 $\pm$ 1.17
Tagged Total MC	3.41 $\pm$ 0.70	52.90 $\pm$ 10.90	102.28 $\pm$ 20.90	120.49 $\pm$ 24.32	42.26 $\pm$ 8.53
Tagged Mistags	0.57 $\pm$ 0.28	1.65 $\pm$ 0.79	1.00 $\pm$ 0.54	0.28 $\pm$ 0.17	0.11 $\pm$ 0.08
Tagged Non-W	4.01 $\pm$ 1.61	13.45 $\pm$ 5.38	7.90 $\pm$ 3.16	4.37 $\pm$ 3.50	1.95 $\pm$ 1.56
Total Prediction	36.64 $\pm$ 10.43	139.11 $\pm$ 30.26	136.29 $\pm$ 23.52	132.93 $\pm$ 24.78	47.19 $\pm$ 8.75
Observed	38.00 $\pm$ 0.00	128.00 $\pm$ 0.00	146.00 $\pm$ 0.00	128.00 $\pm$ 0.00	57.00 $\pm$ 0.00

PHX Electrons

Process	1jet	2jets	3jets	4jets	5jets
All Pretag Candidates	116649.00 $\pm$ 0.00	18249.00 $\pm$ 0.00	3131.00 $\pm$ 0.00	558.00 $\pm$ 0.00	109.00 $\pm$ 0.00
Total Pretag Non-W (after MET cut)	5214.92 $\pm$ 2085.97	2916.48 $\pm$ 1166.59	956.06 $\pm$ 382.42	110.00 $\pm$ 44.00	9.15 $\pm$ 3.66
Total Pretag ww (after MET cut)	326.83 $\pm$ 27.82	327.34 $\pm$ 27.86	59.16 $\pm$ 5.09	9.61 $\pm$ 0.88	1.74 $\pm$ 0.21
Total Pretag wz (after MET cut)	48.34 $\pm$ 5.11	59.36 $\pm$ 6.28	12.46 $\pm$ 1.33	1.76 $\pm$ 0.20	0.34 $\pm$ 0.05
Total Pretag zz (after MET cut)	1.37 $\pm$ 0.20	0.67 $\pm$ 0.10	0.30 $\pm$ 0.05	0.07 $\pm$ 0.01	0.01 $\pm$ 0.00
Total Pretag stops (after MET cut)	8.94 $\pm$ 0.81	16.60 $\pm$ 1.51	4.54 $\pm$ 0.42	0.99 $\pm$ 0.10	0.20 $\pm$ 0.02
Total Pretag stopt (after MET cut)	31.57 $\pm$ 3.45	27.95 $\pm$ 3.06	7.60 $\pm$ 0.84	1.36 $\pm$ 0.16	0.22 $\pm$ 0.03
Total Pretag zlf (after MET cut)	693.07 $\pm$ 60.57	174.05 $\pm$ 15.22	44.99 $\pm$ 3.94	8.13 $\pm$ 0.72	1.45 $\pm$ 0.13
Total Pretag top (after MET cut)	13.48 $\pm$ 1.20	66.02 $\pm$ 5.75	121.96 $\pm$ 10.60	111.01 $\pm$ 9.65	34.56 $\pm$ 3.02
Total Pretag wh115 (after MET cut)	1.09 $\pm$ 0.07	2.22 $\pm$ 0.13	0.55 $\pm$ 0.03	0.09 $\pm$ 0.01	0.02 $\pm$ 0.00
Total Pretag wh100 (after MET cut)	2.50 $\pm$ 0.15	3.78 $\pm$ 0.23	0.81 $\pm$ 0.05	0.12 $\pm$ 0.01	0.02 $\pm$ 0.00
Total Pretag wh105 (after MET cut)	1.94 $\pm$ 0.12	3.28 $\pm$ 0.20	0.70 $\pm$ 0.04	0.11 $\pm$ 0.01	0.01 $\pm$ 0.00
Total Pretag wh110 (after MET cut)	1.47 $\pm$ 0.09	2.69 $\pm$ 0.16	0.61 $\pm$ 0.04	0.10 $\pm$ 0.01	0.01 $\pm$ 0.00
Total Pretag wh120 (after MET cut)	0.81 $\pm$ 0.05	1.80 $\pm$ 0.11	0.46 $\pm$ 0.03	0.07 $\pm$ 0.01	0.01 $\pm$ 0.00
Total Pretag wh125 (after MET cut)	0.57 $\pm$ 0.04	1.40 $\pm$ 0.08	0.37 $\pm$ 0.02	0.06 $\pm$ 0.00	0.01 $\pm$ 0.00
Total Pretag wh130 (after MET cut)	0.39 $\pm$ 0.02	1.03 $\pm$ 0.06	0.30 $\pm$ 0.02	0.05 $\pm$ 0.00	0.01 $\pm$ 0.00
Total Pretag wh135 (after MET cut)	0.26 $\pm$ 0.02	0.75 $\pm$ 0.05	0.22 $\pm$ 0.01	0.04 $\pm$ 0.00	0.01 $\pm$ 0.00
Total Pretag wh140 (after MET cut)	0.16 $\pm$ 0.01	0.51 $\pm$ 0.03	0.15 $\pm$ 0.01	0.03 $\pm$ 0.00	0.00 $\pm$ 0.00
Total Pretag wh145 (after MET cut)	0.10 $\pm$ 0.01	0.32 $\pm$ 0.02	0.10 $\pm$ 0.01	0.02 $\pm$ 0.00	0.00 $\pm$ 0.00
Total Pretag wh150 (after MET cut)	0.05 $\pm$ 0.00	0.19 $\pm$ 0.01	0.07 $\pm$ 0.00	0.01 $\pm$ 0.00	0.00 $\pm$ 0.00
Total Pretag wh120L (after MET cut)	0.80 $\pm$ 0.05	1.78 $\pm$ 0.11	0.45 $\pm$ 0.03	0.07 $\pm$ 0.01	0.01 $\pm$ 0.00
Total Pretag wh120M (after MET cut)	0.76 $\pm$ 0.05	1.74 $\pm$ 0.11	0.50 $\pm$ 0.03	0.08 $\pm$ 0.01	0.01 $\pm$ 0.00
Total Pretag MC (after MET cut)	1123.60 $\pm$ 83.09	671.98 $\pm$ 46.82	251.01 $\pm$ 17.58	132.93 $\pm$ 10.64	38.51 $\pm$ 3.20
Total Pretag Wbb (after MET cut)	1243.89 $\pm$ 373.91	483.09 $\pm$ 149.95	115.91 $\pm$ 41.73	28.15 $\pm$ 9.37	7.20 $\pm$ 2.24
Total Pretag Wcc (after MET cut)	3289.87 $\pm$ 988.92	1096.55 $\pm$ 340.36	238.68 $\pm$ 85.92	56.42 $\pm$ 18.77	13.34 $\pm$ 4.14
Total Pretag Wcj (after MET cut)	6191.41 $\pm$ 1861.11	1050.55 $\pm$ 326.08	148.03 $\pm$ 53.29	23.62 $\pm$ 7.86	4.39 $\pm$ 1.36
Total Pretag Mistags (after MET cut)	99585.32 $\pm$ 2993.78	12030.35 $\pm$ 1278.89	1421.31 $\pm$ 406.04	206.88 $\pm$ 51.95	36.41 $\pm$ 7.07
Total Pretag HF	10725.16 $\pm$ 2145.82	2630.19 $\pm$ 521.94	502.62 $\pm$ 135.32	108.20 $\pm$ 25.49	24.94 $\pm$ 5.13
Total Pretag Corrected	110310.48 $\pm$ 2087.62	14660.54 $\pm$ 1167.53	1923.93 $\pm$ 382.83	315.07 $\pm$ 45.27	61.34 $\pm$ 4.86
Total LF Pretag Corrected	99585.32 $\pm$ 2993.78	12030.35 $\pm$ 1278.89	1421.31 $\pm$ 406.04	206.88 $\pm$ 51.95	36.41 $\pm$ 7.07
Tagged ww	0.00 $\pm$ 0.00	0.08 $\pm$ 0.02	0.07 $\pm$ 0.01	0.05 $\pm$ 0.01	0.01 $\pm$ 0.00
Tagged wz	0.25 $\pm$ 0.05	1.40 $\pm$ 0.31	0.28 $\pm$ 0.06	0.06 $\pm$ 0.01	0.01 $\pm$ 0.00
Tagged zz	0.00 $\pm$ 0.00	0.01 $\pm$ 0.00	0.01 $\pm$ 0.00	0.00 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged stops	0.19 $\pm$ 0.04	2.16 $\pm$ 0.46	0.64 $\pm$ 0.13	0.16 $\pm$ 0.03	0.04 $\pm$ 0.01
Tagged stopt	0.17 $\pm$ 0.04	0.82 $\pm$ 0.18	0.73 $\pm$ 0.16	0.17 $\pm$ 0.04	0.04 $\pm$ 0.01
Tagged zlf	0.10 $\pm$ 0.02	0.13 $\pm$ 0.03	0.13 $\pm$ 0.03	0.05 $\pm$ 0.01	0.02 $\pm$ 0.01
Tagged top	0.34 $\pm$ 0.07	6.47 $\pm$ 1.36	16.42 $\pm$ 3.37	20.90 $\pm$ 4.26	6.89 $\pm$ 1.38
Tagged wh115	0.03 $\pm$ 0.01	0.30 $\pm$ 0.06	0.08 $\pm$ 0.02	0.01 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh100	0.07 $\pm$ 0.01	0.46 $\pm$ 0.09	0.12 $\pm$ 0.02	0.02 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh105	0.05 $\pm$ 0.01	0.43 $\pm$ 0.09	0.10 $\pm$ 0.02	0.02 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh110	0.04 $\pm$ 0.01	0.35 $\pm$ 0.07	0.08 $\pm$ 0.02	0.02 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh120	0.02 $\pm$ 0.00	0.25 $\pm$ 0.05	0.07 $\pm$ 0.01	0.01 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh125	0.01 $\pm$ 0.00	0.18 $\pm$ 0.04	0.06 $\pm$ 0.01	0.01 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh130	0.01 $\pm$ 0.00	0.14 $\pm$ 0.03	0.05 $\pm$ 0.01	0.01 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh135	0.01 $\pm$ 0.00	0.11 $\pm$ 0.02	0.03 $\pm$ 0.01	0.01 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh140	0.00 $\pm$ 0.00	0.07 $\pm$ 0.01	0.02 $\pm$ 0.00	0.00 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh145	0.00 $\pm$ 0.00	0.05 $\pm$ 0.01	0.02 $\pm$ 0.00	0.00 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh150	0.00 $\pm$ 0.00	0.03 $\pm$ 0.01	0.01 $\pm$ 0.00	0.00 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh120L	0.02 $\pm$ 0.00	0.25 $\pm$ 0.05	0.06 $\pm$ 0.01	0.01 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh120M	0.02 $\pm$ 0.00	0.22 $\pm$ 0.05	0.07 $\pm$ 0.01	0.01 $\pm$ 0.00	0.00 $\pm$ 0.00
Raw Mis-tags(info)	0.28 $\pm$ 0.12	1.17 $\pm$ 0.45	0.80 $\pm$ 0.29	0.42 $\pm$ 0.14	0.10 $\pm$ 0.04
Tagged Wbb	8.06 $\pm$ 2.84	21.36 $\pm$ 7.68	6.72 $\pm$ 2.68	2.14 $\pm$ 0.79	0.67 $\pm$ 0.23
Tagged Wcc	0.34 $\pm$ 0.12	1.51 $\pm$ 0.52	0.80 $\pm$ 0.31	0.34 $\pm$ 0.12	0.16 $\pm$ 0.05
Tagged Wcj	0.63 $\pm$ 0.22	1.45 $\pm$ 0.50	0.49 $\pm$ 0.19	0.14 $\pm$ 0.05	0.05 $\pm$ 0.02
Tagged Total HF	9.03 $\pm$ 3.17	24.32 $\pm$ 8.64	8.01 $\pm$ 3.06	2.62 $\pm$ 0.94	0.88 $\pm$ 0.30
Tagged Total MC	1.07 $\pm$ 0.22	11.07 $\pm$ 2.28	18.28 $\pm$ 3.73	21.38 $\pm$ 4.35	7.01 $\pm$ 1.41
Tagged Mistags	0.24 $\pm$ 0.10	0.77 $\pm$ 0.31	0.36 $\pm$ 0.17	0.16 $\pm$ 0.07	0.03 $\pm$ 0.01
Tagged Non-W	0.61 $\pm$ 0.24	1.94 $\pm$ 0.77	0.00 $\pm$ 0.50	0.00 $\pm$ 0.50	0.00 $\pm$ 0.50
Total Prediction	10.94 $\pm$ 3.19	38.10 $\pm$ 8.97	26.65 $\pm$ 4.85	24.16 $\pm$ 4.48	7.93 $\pm$ 1.52
Observed	17.00 $\pm$ 0.00	32.00 $\pm$ 0.00	24.00 $\pm$ 0.00	20.00 $\pm$ 0.00	6.00 $\pm$ 0.00

CMUP Muons

Process	1jet	2jets	3jets	4jets	5jets
All Pretag Candidates	144484.00 $\pm$ 0.00	23213.00 $\pm$ 0.00	3896.00 $\pm$ 0.00	861.00 $\pm$ 0.00	211.00 $\pm$ 0.00
Total Pretag Non-W (after MET cut)	9139.59 $\pm$ 3655.84	1648.40 $\pm$ 659.36	236.36 $\pm$ 94.54	35.05 $\pm$ 14.02	9.02 $\pm$ 3.61
Total Pretag ww (after MET cut)	506.28 $\pm$ 43.06	540.62 $\pm$ 45.97	109.45 $\pm$ 9.36	18.68 $\pm$ 1.64	3.30 $\pm$ 0.34
Total Pretag wz (after MET cut)	70.82 $\pm$ 7.48	84.06 $\pm$ 8.88	18.69 $\pm$ 1.99	3.11 $\pm$ 0.34	0.49 $\pm$ 0.06
Total Pretag zz (after MET cut)	4.57 $\pm$ 0.67	5.32 $\pm$ 0.78	1.64 $\pm$ 0.24	0.37 $\pm$ 0.06	0.08 $\pm$ 0.02
Total Pretag stops (after MET cut)	19.54 $\pm$ 1.77	47.45 $\pm$ 4.30	14.95 $\pm$ 1.36	3.28 $\pm$ 0.30	0.64 $\pm$ 0.06
Total Pretag stopt (after MET cut)	59.66 $\pm$ 6.52	74.30 $\pm$ 8.12	22.33 $\pm$ 2.44	4.16 $\pm$ 0.46	0.70 $\pm$ 0.08
Total Pretag zlf (after MET cut)	10776.54 $\pm$ 941.98	1929.64 $\pm$ 168.67	303.02 $\pm$ 26.49	44.37 $\pm$ 3.88	6.46 $\pm$ 0.57
Total Pretag top (after MET cut)	34.82 $\pm$ 3.04	187.85 $\pm$ 16.31	368.00 $\pm$ 31.93	343.55 $\pm$ 29.81	114.36 $\pm$ 9.94
Total Pretag wh115 (after MET cut)	2.91 $\pm$ 0.18	6.82 $\pm$ 0.41	1.79 $\pm$ 0.11	0.32 $\pm$ 0.02	0.05 $\pm$ 0.00
Total Pretag wh100 (after MET cut)	6.31 $\pm$ 0.38	11.12 $\pm$ 0.67	2.55 $\pm$ 0.16	0.43 $\pm$ 0.03	0.07 $\pm$ 0.01
Total Pretag wh105 (after MET cut)	4.95 $\pm$ 0.30	9.59 $\pm$ 0.58	2.35 $\pm$ 0.14	0.40 $\pm$ 0.03	0.06 $\pm$ 0.01
Total Pretag wh110 (after MET cut)	3.72 $\pm$ 0.23	7.89 $\pm$ 0.48	1.98 $\pm$ 0.12	0.34 $\pm$ 0.02	0.06 $\pm$ 0.00
Total Pretag wh120 (after MET cut)	2.18 $\pm$ 0.13	5.57 $\pm$ 0.34	1.53 $\pm$ 0.09	0.26 $\pm$ 0.02	0.05 $\pm$ 0.00
Total Pretag wh125 (after MET cut)	1.61 $\pm$ 0.10	4.38 $\pm$ 0.26	1.26 $\pm$ 0.08	0.23 $\pm$ 0.01	0.04 $\pm$ 0.00
Total Pretag wh130 (after MET cut)	1.12 $\pm$ 0.07	3.33 $\pm$ 0.20	1.00 $\pm$ 0.06	0.19 $\pm$ 0.01	0.03 $\pm$ 0.00
Total Pretag wh135 (after MET cut)	0.76 $\pm$ 0.05	2.43 $\pm$ 0.15	0.77 $\pm$ 0.05	0.14 $\pm$ 0.01	0.03 $\pm$ 0.00
Total Pretag wh140 (after MET cut)	0.50 $\pm$ 0.03	1.68 $\pm$ 0.10	0.55 $\pm$ 0.03	0.11 $\pm$ 0.01	0.02 $\pm$ 0.00
Total Pretag wh145 (after MET cut)	0.31 $\pm$ 0.02	1.11 $\pm$ 0.07	0.37 $\pm$ 0.02	0.08 $\pm$ 0.00	0.01 $\pm$ 0.00
Total Pretag wh150 (after MET cut)	0.17 $\pm$ 0.01	0.66 $\pm$ 0.04	0.23 $\pm$ 0.01	0.05 $\pm$ 0.00	0.01 $\pm$ 0.00
Total Pretag wh120L (after MET cut)	2.20 $\pm$ 0.13	5.59 $\pm$ 0.34	1.50 $\pm$ 0.09	0.25 $\pm$ 0.02	0.03 $\pm$ 0.00
Total Pretag wh120M (after MET cut)	2.03 $\pm$ 0.12	5.40 $\pm$ 0.33	1.67 $\pm$ 0.10	0.33 $\pm$ 0.02	0.07 $\pm$ 0.00
Total Pretag MC (after MET cut)	11472.24 $\pm$ 971.69	2869.25 $\pm$ 214.54	838.09 $\pm$ 59.06	417.52 $\pm$ 33.19	126.03 $\pm$ 10.45
Total Pretag Wbb (after MET cut)	1687.01 $\pm$ 508.72	707.36 $\pm$ 213.82	186.86 $\pm$ 56.54	38.79 $\pm$ 12.13	9.37 $\pm$ 3.12
Total Pretag Wcc (after MET cut)	4377.96 $\pm$ 1320.18	1469.64 $\pm$ 444.25	376.32 $\pm$ 113.87	82.94 $\pm$ 25.93	16.71 $\pm$ 5.57
Total Pretag Wcj (after MET cut)	8378.50 $\pm$ 2526.54	1660.76 $\pm$ 502.02	273.50 $\pm$ 82.76	39.04 $\pm$ 12.21	7.10 $\pm$ 2.37
Total Pretag Mistags (after MET cut)	109428.70 $\pm$ 4775.24	14857.60 $\pm$ 994.33	1984.87 $\pm$ 190.10	247.67 $\pm$ 48.89	42.77 $\pm$ 13.53
Total Pretag HF	14443.47 $\pm$ 2914.38	3837.75 $\pm$ 712.68	836.68 $\pm$ 153.99	160.77 $\pm$ 33.06	33.18 $\pm$ 7.80
Total Pretag Corrected	123872.17 $\pm$ 3782.77	18695.35 $\pm$ 693.39	2821.55 $\pm$ 111.47	408.43 $\pm$ 36.03	75.94 $\pm$ 11.05
Total LF Pretag Corrected	109428.70 $\pm$ 4775.24	14857.60 $\pm$ 994.33	1984.87 $\pm$ 190.10	247.67 $\pm$ 48.89	42.77 $\pm$ 13.53
Tagged ww	0.02 $\pm$ 0.01	0.14 $\pm$ 0.03	0.17 $\pm$ 0.03	0.12 $\pm$ 0.02	0.04 $\pm$ 0.01
Tagged wz	0.22 $\pm$ 0.05	1.42 $\pm$ 0.31	0.37 $\pm$ 0.08	0.05 $\pm$ 0.01	0.02 $\pm$ 0.00
Tagged zz	0.02 $\pm$ 0.00	0.09 $\pm$ 0.02	0.04 $\pm$ 0.01	0.01 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged stops	0.38 $\pm$ 0.08	6.23 $\pm$ 1.32	2.19 $\pm$ 0.46	0.53 $\pm$ 0.11	0.11 $\pm$ 0.02
Tagged stopt	0.25 $\pm$ 0.06	1.88 $\pm$ 0.42	1.98 $\pm$ 0.43	0.52 $\pm$ 0.11	0.12 $\pm$ 0.03
Tagged zlf	0.68 $\pm$ 0.15	1.90 $\pm$ 0.42	0.93 $\pm$ 0.21	0.28 $\pm$ 0.06	0.08 $\pm$ 0.02
Tagged top	0.60 $\pm$ 0.13	16.80 $\pm$ 3.54	47.71 $\pm$ 9.80	60.28 $\pm$ 12.21	21.97 $\pm$ 4.42
Tagged wh115	0.08 $\pm$ 0.02	0.89 $\pm$ 0.18	0.26 $\pm$ 0.05	0.05 $\pm$ 0.01	0.01 $\pm$ 0.00
Tagged wh100	0.17 $\pm$ 0.04	1.39 $\pm$ 0.28	0.35 $\pm$ 0.07	0.07 $\pm$ 0.01	0.01 $\pm$ 0.00
Tagged wh105	0.13 $\pm$ 0.03	1.21 $\pm$ 0.24	0.34 $\pm$ 0.07	0.06 $\pm$ 0.01	0.01 $\pm$ 0.00
Tagged wh110	0.10 $\pm$ 0.02	1.02 $\pm$ 0.21	0.28 $\pm$ 0.06	0.06 $\pm$ 0.01	0.01 $\pm$ 0.00
Tagged wh120	0.05 $\pm$ 0.01	0.74 $\pm$ 0.15	0.22 $\pm$ 0.04	0.04 $\pm$ 0.01	0.01 $\pm$ 0.00
Tagged wh125	0.04 $\pm$ 0.01	0.59 $\pm$ 0.12	0.19 $\pm$ 0.04	0.03 $\pm$ 0.01	0.01 $\pm$ 0.00
Tagged wh130	0.03 $\pm$ 0.01	0.44 $\pm$ 0.09	0.15 $\pm$ 0.03	0.03 $\pm$ 0.01	0.01 $\pm$ 0.00
Tagged wh135	0.02 $\pm$ 0.00	0.33 $\pm$ 0.07	0.11 $\pm$ 0.02	0.02 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh140	0.01 $\pm$ 0.00	0.23 $\pm$ 0.05	0.08 $\pm$ 0.02	0.02 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh145	0.01 $\pm$ 0.00	0.15 $\pm$ 0.03	0.06 $\pm$ 0.01	0.01 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh150	0.00 $\pm$ 0.00	0.09 $\pm$ 0.02	0.04 $\pm$ 0.01	0.01 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh120L	0.05 $\pm$ 0.01	0.75 $\pm$ 0.15	0.22 $\pm$ 0.04	0.04 $\pm$ 0.01	0.01 $\pm$ 0.00
Tagged wh120M	0.05 $\pm$ 0.01	0.68 $\pm$ 0.14	0.24 $\pm$ 0.05	0.05 $\pm$ 0.01	0.01 $\pm$ 0.00
Raw Mis-tags(info)	0.31 $\pm$ 0.15	1.41 $\pm$ 0.56	0.99 $\pm$ 0.36	0.43 $\pm$ 0.16	0.14 $\pm$ 0.06
Tagged Wbb	11.41 $\pm$ 4.02	34.93 $\pm$ 12.27	11.19 $\pm$ 3.87	2.93 $\pm$ 1.03	0.84 $\pm$ 0.31
Tagged Wcc	0.50 $\pm$ 0.18	2.10 $\pm$ 0.70	1.31 $\pm$ 0.43	0.48 $\pm$ 0.16	0.17 $\pm$ 0.06
Tagged Wcj	0.97 $\pm$ 0.34	2.38 $\pm$ 0.79	0.95 $\pm$ 0.32	0.22 $\pm$ 0.08	0.07 $\pm$ 0.03
Tagged Total HF	12.88 $\pm$ 4.52	39.41 $\pm$ 13.75	13.46 $\pm$ 4.61	3.63 $\pm$ 1.26	1.08 $\pm$ 0.38
Tagged Total MC	2.17 $\pm$ 0.45	28.45 $\pm$ 5.86	53.39 $\pm$ 10.90	61.80 $\pm$ 12.49	22.35 $\pm$ 4.49
Tagged Mistags	0.24 $\pm$ 0.11	0.90 $\pm$ 0.36	0.50 $\pm$ 0.19	0.12 $\pm$ 0.05	0.03 $\pm$ 0.01
Tagged Non-W	1.09 $\pm$ 0.43	5.39 $\pm$ 2.16	1.61 $\pm$ 0.64	0.00 $\pm$ 0.50	0.00 $\pm$ 0.50
Total Prediction	16.37 $\pm$ 4.57	74.15 $\pm$ 15.10	68.96 $\pm$ 11.86	65.56 $\pm$ 12.57	23.46 $\pm$ 4.54
Observed	18.00 $\pm$ 0.00	56.00 $\pm$ 0.00	62.00 $\pm$ 0.00	40.00 $\pm$ 0.00	23.00 $\pm$ 0.00

CMX Muons

Process	1jet	2jets	3jets	4jets	5jets
All Pretag Candidates	92995.00 $\pm$ 0.00	14744.00 $\pm$ 0.00	2266.00 $\pm$ 0.00	521.00 $\pm$ 0.00	119.00 $\pm$ 0.00
Total Pretag Non-W (after MET cut)	8306.58 $\pm$ 3322.63	1582.08 $\pm$ 632.83	244.61 $\pm$ 97.84	14.74 $\pm$ 5.90	5.30 $\pm$ 2.12
Total Pretag ww (after MET cut)	277.22 $\pm$ 23.61	297.38 $\pm$ 25.32	59.25 $\pm$ 5.10	10.24 $\pm$ 0.93	1.63 $\pm$ 0.19
Total Pretag wz (after MET cut)	41.14 $\pm$ 4.35	50.05 $\pm$ 5.30	11.08 $\pm$ 1.18	1.81 $\pm$ 0.21	0.33 $\pm$ 0.05
Total Pretag zz (after MET cut)	2.72 $\pm$ 0.40	3.02 $\pm$ 0.44	0.92 $\pm$ 0.14	0.17 $\pm$ 0.03	0.04 $\pm$ 0.01
Total Pretag stops (after MET cut)	10.23 $\pm$ 0.93	22.22 $\pm$ 2.02	6.82 $\pm$ 0.62	1.50 $\pm$ 0.14	0.30 $\pm$ 0.03
Total Pretag stopt (after MET cut)	31.45 $\pm$ 3.44	36.73 $\pm$ 4.02	10.69 $\pm$ 1.18	1.90 $\pm$ 0.21	0.34 $\pm$ 0.04
Total Pretag zlf (after MET cut)	7037.48 $\pm$ 615.21	1185.09 $\pm$ 103.60	181.88 $\pm$ 15.90	25.99 $\pm$ 2.28	4.00 $\pm$ 0.35
Total Pretag top (after MET cut)	16.33 $\pm$ 1.44	87.79 $\pm$ 7.64	173.82 $\pm$ 15.10	161.89 $\pm$ 14.06	53.69 $\pm$ 4.68
Total Pretag wh115 (after MET cut)	1.41 $\pm$ 0.09	3.26 $\pm$ 0.20	0.87 $\pm$ 0.05	0.15 $\pm$ 0.01	0.02 $\pm$ 0.00
Total Pretag wh100 (after MET cut)	3.11 $\pm$ 0.19	5.34 $\pm$ 0.32	1.18 $\pm$ 0.07	0.20 $\pm$ 0.01	0.03 $\pm$ 0.00
Total Pretag wh105 (after MET cut)	2.40 $\pm$ 0.15	4.58 $\pm$ 0.28	1.10 $\pm$ 0.07	0.18 $\pm$ 0.01	0.03 $\pm$ 0.00
Total Pretag wh110 (after MET cut)	1.81 $\pm$ 0.11	3.73 $\pm$ 0.23	0.91 $\pm$ 0.06	0.15 $\pm$ 0.01	0.02 $\pm$ 0.00
Total Pretag wh120 (after MET cut)	1.06 $\pm$ 0.06	2.66 $\pm$ 0.16	0.72 $\pm$ 0.04	0.13 $\pm$ 0.01	0.02 $\pm$ 0.00
Total Pretag wh125 (after MET cut)	0.76 $\pm$ 0.05	2.10 $\pm$ 0.13	0.60 $\pm$ 0.04	0.10 $\pm$ 0.01	0.02 $\pm$ 0.00
Total Pretag wh130 (after MET cut)	0.54 $\pm$ 0.03	1.57 $\pm$ 0.10	0.47 $\pm$ 0.03	0.08 $\pm$ 0.01	0.01 $\pm$ 0.00
Total Pretag wh135 (after MET cut)	0.37 $\pm$ 0.02	1.13 $\pm$ 0.07	0.35 $\pm$ 0.02	0.06 $\pm$ 0.00	0.01 $\pm$ 0.00
Total Pretag wh140 (after MET cut)	0.23 $\pm$ 0.01	0.77 $\pm$ 0.05	0.25 $\pm$ 0.02	0.05 $\pm$ 0.00	0.01 $\pm$ 0.00
Total Pretag wh145 (after MET cut)	0.14 $\pm$ 0.01	0.50 $\pm$ 0.03	0.17 $\pm$ 0.01	0.03 $\pm$ 0.00	0.01 $\pm$ 0.00
Total Pretag wh150 (after MET cut)	0.08 $\pm$ 0.00	0.31 $\pm$ 0.02	0.10 $\pm$ 0.01	0.02 $\pm$ 0.00	0.00 $\pm$ 0.00
Total Pretag wh120L (after MET cut)	1.06 $\pm$ 0.06	2.64 $\pm$ 0.16	0.70 $\pm$ 0.04	0.12 $\pm$ 0.01	0.01 $\pm$ 0.00
Total Pretag wh120M (after MET cut)	1.00 $\pm$ 0.06	2.55 $\pm$ 0.15	0.77 $\pm$ 0.05	0.15 $\pm$ 0.01	0.03 $\pm$ 0.00
Total Pretag MC (after MET cut)	7416.56 $\pm$ 631.32	1682.28 $\pm$ 127.53	444.47 $\pm$ 31.32	203.50 $\pm$ 16.00	60.33 $\pm$ 4.98
Total Pretag Wbb (after MET cut)	1015.34 $\pm$ 307.83	408.77 $\pm$ 124.77	100.22 $\pm$ 30.77	28.32 $\pm$ 8.64	6.00 $\pm$ 1.90
Total Pretag Wcc (after MET cut)	2600.13 $\pm$ 788.30	894.74 $\pm$ 273.10	208.29 $\pm$ 63.94	52.16 $\pm$ 15.92	12.11 $\pm$ 3.83
Total Pretag Wcj (after MET cut)	4915.39 $\pm$ 1490.23	959.06 $\pm$ 292.73	145.95 $\pm$ 44.81	27.44 $\pm$ 8.38	4.86 $\pm$ 1.54
Total Pretag Mistags (after MET cut)	68740.99 $\pm$ 3801.79	9217.06 $\pm$ 776.40	1122.46 $\pm$ 134.75	194.85 $\pm$ 26.69	30.40 $\pm$ 7.30
Total Pretag HF	8530.86 $\pm$ 1736.42	2262.58 $\pm$ 431.35	454.47 $\pm$ 87.19	107.91 $\pm$ 20.54	22.97 $\pm$ 4.90
Total Pretag Corrected	77271.86 $\pm$ 3382.08	11479.64 $\pm$ 645.55	1576.92 $\pm$ 102.73	302.76 $\pm$ 17.05	53.37 $\pm$ 5.41
Total LF Pretag Corrected	68740.99 $\pm$ 3801.79	9217.06 $\pm$ 776.40	1122.46 $\pm$ 134.75	194.85 $\pm$ 26.69	30.40 $\pm$ 7.30
Tagged ww	0.01 $\pm$ 0.00	0.10 $\pm$ 0.02	0.09 $\pm$ 0.02	0.03 $\pm$ 0.01	0.01 $\pm$ 0.00
Tagged wz	0.16 $\pm$ 0.04	0.98 $\pm$ 0.22	0.26 $\pm$ 0.06	0.04 $\pm$ 0.01	0.01 $\pm$ 0.00
Tagged zz	0.01 $\pm$ 0.00	0.07 $\pm$ 0.02	0.02 $\pm$ 0.00	0.00 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged stops	0.20 $\pm$ 0.04	3.05 $\pm$ 0.65	1.08 $\pm$ 0.23	0.24 $\pm$ 0.05	0.05 $\pm$ 0.01
Tagged stopt	0.16 $\pm$ 0.04	1.04 $\pm$ 0.23	0.94 $\pm$ 0.21	0.26 $\pm$ 0.06	0.05 $\pm$ 0.01
Tagged zlf	0.38 $\pm$ 0.08	1.08 $\pm$ 0.24	0.59 $\pm$ 0.13	0.16 $\pm$ 0.04	0.06 $\pm$ 0.01
Tagged top	0.43 $\pm$ 0.09	8.16 $\pm$ 1.72	23.00 $\pm$ 4.72	29.23 $\pm$ 5.94	10.41 $\pm$ 2.10
Tagged wh115	0.04 $\pm$ 0.01	0.44 $\pm$ 0.09	0.14 $\pm$ 0.03	0.02 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh100	0.09 $\pm$ 0.02	0.69 $\pm$ 0.14	0.17 $\pm$ 0.03	0.03 $\pm$ 0.01	0.00 $\pm$ 0.00
Tagged wh105	0.07 $\pm$ 0.01	0.58 $\pm$ 0.12	0.17 $\pm$ 0.03	0.03 $\pm$ 0.01	0.00 $\pm$ 0.00
Tagged wh110	0.04 $\pm$ 0.01	0.49 $\pm$ 0.10	0.13 $\pm$ 0.03	0.02 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh120	0.02 $\pm$ 0.00	0.36 $\pm$ 0.07	0.11 $\pm$ 0.02	0.02 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh125	0.02 $\pm$ 0.00	0.29 $\pm$ 0.06	0.09 $\pm$ 0.02	0.02 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh130	0.01 $\pm$ 0.00	0.22 $\pm$ 0.04	0.07 $\pm$ 0.01	0.01 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh135	0.01 $\pm$ 0.00	0.15 $\pm$ 0.03	0.05 $\pm$ 0.01	0.01 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh140	0.01 $\pm$ 0.00	0.11 $\pm$ 0.02	0.04 $\pm$ 0.01	0.01 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh145	0.00 $\pm$ 0.00	0.07 $\pm$ 0.01	0.03 $\pm$ 0.01	0.01 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh150	0.00 $\pm$ 0.00	0.04 $\pm$ 0.01	0.02 $\pm$ 0.00	0.00 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh120L	0.03 $\pm$ 0.01	0.36 $\pm$ 0.07	0.11 $\pm$ 0.02	0.02 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh120M	0.02 $\pm$ 0.00	0.34 $\pm$ 0.07	0.11 $\pm$ 0.02	0.02 $\pm$ 0.00	0.00 $\pm$ 0.00
Raw Mis-tags(info)	0.23 $\pm$ 0.11	0.81 $\pm$ 0.33	0.56 $\pm$ 0.20	0.32 $\pm$ 0.11	0.12 $\pm$ 0.04
Tagged Wbb	6.98 $\pm$ 2.47	18.53 $\pm$ 6.57	6.35 $\pm$ 2.23	2.26 $\pm$ 0.78	0.62 $\pm$ 0.22
Tagged Wcc	0.24 $\pm$ 0.08	1.14 $\pm$ 0.38	0.72 $\pm$ 0.24	0.40 $\pm$ 0.13	0.13 $\pm$ 0.05
Tagged Wcj	0.46 $\pm$ 0.16	1.22 $\pm$ 0.41	0.51 $\pm$ 0.17	0.21 $\pm$ 0.07	0.05 $\pm$ 0.02
Tagged Total HF	7.69 $\pm$ 2.71	20.90 $\pm$ 7.34	7.58 $\pm$ 2.63	2.87 $\pm$ 0.98	0.81 $\pm$ 0.28
Tagged Total MC	1.36 $\pm$ 0.28	14.48 $\pm$ 2.99	25.98 $\pm$ 5.30	29.95 $\pm$ 6.08	10.60 $\pm$ 2.13
Tagged Mistags	0.17 $\pm$ 0.08	0.50 $\pm$ 0.21	0.28 $\pm$ 0.11	0.12 $\pm$ 0.04	0.03 $\pm$ 0.01
Tagged Non-W	1.16 $\pm$ 0.47	1.63 $\pm$ 0.65	1.04 $\pm$ 0.42	0.00 $\pm$ 0.50	0.00 $\pm$ 0.50
Total Prediction	10.38 $\pm$ 2.77	37.51 $\pm$ 7.96	34.88 $\pm$ 5.93	32.94 $\pm$ 6.18	11.43 $\pm$ 2.21
Observed	8.00 $\pm$ 0.00	30.00 $\pm$ 0.00	29.00 $\pm$ 0.00	26.00 $\pm$ 0.00	20.00 $\pm$ 0.00

LMU Muons

Process	1jet	2jets	3jets	4jets	5jets
All Pretag Candidates	22433.00 $\pm$ 0.00	9052.00 $\pm$ 0.00	1934.00 $\pm$ 0.00	516.00 $\pm$ 0.00	136.00 $\pm$ 0.00
Total Pretag Non-W (after MET cut)	0.00 $\pm$ 0.00	0.00 $\pm$ 0.00	0.00 $\pm$ 0.00	0.00 $\pm$ 0.00	0.00 $\pm$ 0.00
Total Pretag ww (after MET cut)	157.40 $\pm$ 13.48	229.90 $\pm$ 19.66	58.91 $\pm$ 5.09	11.15 $\pm$ 1.02	2.25 $\pm$ 0.26
Total Pretag wz (after MET cut)	24.19 $\pm$ 2.57	41.97 $\pm$ 4.45	11.80 $\pm$ 1.26	2.03 $\pm$ 0.23	0.36 $\pm$ 0.05
Total Pretag zz (after MET cut)	1.50 $\pm$ 0.22	2.62 $\pm$ 0.39	1.01 $\pm$ 0.15	0.20 $\pm$ 0.03	0.04 $\pm$ 0.01
Total Pretag stops (after MET cut)	8.43 $\pm$ 0.77	25.36 $\pm$ 2.31	8.32 $\pm$ 0.76	1.81 $\pm$ 0.17	0.35 $\pm$ 0.04
Total Pretag stopt (after MET cut)	24.74 $\pm$ 2.71	38.74 $\pm$ 4.24	11.79 $\pm$ 1.30	2.22 $\pm$ 0.25	0.40 $\pm$ 0.05
Total Pretag zlf (after MET cut)	1796.18 $\pm$ 157.44	900.46 $\pm$ 78.93	190.69 $\pm$ 16.72	30.67 $\pm$ 2.69	5.16 $\pm$ 0.46
Total Pretag top (after MET cut)	20.54 $\pm$ 1.82	121.30 $\pm$ 10.58	237.92 $\pm$ 20.71	219.07 $\pm$ 19.07	73.57 $\pm$ 6.43
Total Pretag wh115 (after MET cut)	1.35 $\pm$ 0.08	3.60 $\pm$ 0.22	1.10 $\pm$ 0.07	0.20 $\pm$ 0.01	0.03 $\pm$ 0.00
Total Pretag wh100 (after MET cut)	2.67 $\pm$ 0.16	5.51 $\pm$ 0.34	1.52 $\pm$ 0.09	0.27 $\pm$ 0.02	0.04 $\pm$ 0.00
Total Pretag wh105 (after MET cut)	2.13 $\pm$ 0.13	4.88 $\pm$ 0.30	1.34 $\pm$ 0.08	0.25 $\pm$ 0.02	0.04 $\pm$ 0.00
Total Pretag wh110 (after MET cut)	1.65 $\pm$ 0.10	4.11 $\pm$ 0.25	1.17 $\pm$ 0.07	0.19 $\pm$ 0.01	0.04 $\pm$ 0.00
Total Pretag wh120 (after MET cut)	1.06 $\pm$ 0.06	3.02 $\pm$ 0.18	0.94 $\pm$ 0.06	0.17 $\pm$ 0.01	0.03 $\pm$ 0.00
Total Pretag wh125 (after MET cut)	0.77 $\pm$ 0.05	2.42 $\pm$ 0.15	0.77 $\pm$ 0.05	0.15 $\pm$ 0.01	0.03 $\pm$ 0.00
Total Pretag wh130 (after MET cut)	0.55 $\pm$ 0.03	1.86 $\pm$ 0.11	0.63 $\pm$ 0.04	0.12 $\pm$ 0.01	0.02 $\pm$ 0.00
Total Pretag wh135 (after MET cut)	0.38 $\pm$ 0.02	1.39 $\pm$ 0.08	0.47 $\pm$ 0.03	0.10 $\pm$ 0.01	0.02 $\pm$ 0.00
Total Pretag wh140 (after MET cut)	0.26 $\pm$ 0.02	0.98 $\pm$ 0.06	0.34 $\pm$ 0.02	0.07 $\pm$ 0.00	0.01 $\pm$ 0.00
Total Pretag wh145 (after MET cut)	0.16 $\pm$ 0.01	0.64 $\pm$ 0.04	0.23 $\pm$ 0.01	0.05 $\pm$ 0.00	0.01 $\pm$ 0.00
Total Pretag wh150 (after MET cut)	0.09 $\pm$ 0.01	0.39 $\pm$ 0.02	0.15 $\pm$ 0.01	0.03 $\pm$ 0.00	0.01 $\pm$ 0.00
Total Pretag wh120L (after MET cut)	1.06 $\pm$ 0.07	3.05 $\pm$ 0.19	0.92 $\pm$ 0.06	0.16 $\pm$ 0.01	0.03 $\pm$ 0.00
Total Pretag wh120M (after MET cut)	0.98 $\pm$ 0.06	2.93 $\pm$ 0.18	1.03 $\pm$ 0.06	0.21 $\pm$ 0.01	0.04 $\pm$ 0.00
Total Pretag MC (after MET cut)	2032.99 $\pm$ 167.93	1360.35 $\pm$ 101.51	520.43 $\pm$ 37.06	267.15 $\pm$ 21.30	82.12 $\pm$ 6.81
Total Pretag Wbb (after MET cut)	374.76 $\pm$ 112.47	313.15 $\pm$ 94.04	96.38 $\pm$ 29.02	24.33 $\pm$ 7.59	6.77 $\pm$ 2.21
Total Pretag Wcc (after MET cut)	820.32 $\pm$ 246.19	642.64 $\pm$ 192.98	196.42 $\pm$ 59.15	45.56 $\pm$ 14.21	13.07 $\pm$ 4.25
Total Pretag Wcj (after MET cut)	1313.29 $\pm$ 394.14	583.08 $\pm$ 175.09	116.96 $\pm$ 35.22	20.19 $\pm$ 6.30	4.42 $\pm$ 1.44
Total Pretag Mistags (after MET cut)	17891.64 $\pm$ 507.01	6152.78 $\pm$ 295.48	1003.81 $\pm$ 83.84	158.77 $\pm$ 28.11	29.62 $\pm$ 8.77
Total Pretag HF	2508.37 $\pm$ 478.39	1538.87 $\pm$ 277.50	409.76 $\pm$ 75.20	90.08 $\pm$ 18.34	24.26 $\pm$ 5.54
Total Pretag Corrected	20400.01 $\pm$ 167.93	7691.65 $\pm$ 101.51	1413.57 $\pm$ 37.06	248.85 $\pm$ 21.30	53.88 $\pm$ 6.81
Total LF Pretag Corrected	17891.64 $\pm$ 507.01	6152.78 $\pm$ 295.48	1003.81 $\pm$ 83.84	158.77 $\pm$ 28.11	29.62 $\pm$ 8.77
Tagged ww	0.00 $\pm$ 0.00	0.08 $\pm$ 0.02	0.10 $\pm$ 0.02	0.10 $\pm$ 0.02	0.01 $\pm$ 0.00
Tagged wz	0.09 $\pm$ 0.02	0.81 $\pm$ 0.18	0.27 $\pm$ 0.06	0.04 $\pm$ 0.01	0.01 $\pm$ 0.00
Tagged zz	0.00 $\pm$ 0.00	0.06 $\pm$ 0.01	0.03 $\pm$ 0.01	0.01 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged stops	0.20 $\pm$ 0.04	3.48 $\pm$ 0.74	1.29 $\pm$ 0.27	0.32 $\pm$ 0.07	0.06 $\pm$ 0.01
Tagged stopt	0.14 $\pm$ 0.03	1.12 $\pm$ 0.25	1.10 $\pm$ 0.24	0.28 $\pm$ 0.06	0.04 $\pm$ 0.01
Tagged zlf	0.20 $\pm$ 0.04	1.26 $\pm$ 0.28	0.64 $\pm$ 0.14	0.21 $\pm$ 0.05	0.05 $\pm$ 0.01
Tagged top	0.45 $\pm$ 0.10	11.10 $\pm$ 2.34	30.82 $\pm$ 6.33	38.66 $\pm$ 7.83	14.05 $\pm$ 2.83
Tagged wh115	0.03 $\pm$ 0.01	0.48 $\pm$ 0.10	0.17 $\pm$ 0.03	0.03 $\pm$ 0.01	0.01 $\pm$ 0.00
Tagged wh100	0.06 $\pm$ 0.01	0.71 $\pm$ 0.14	0.20 $\pm$ 0.04	0.04 $\pm$ 0.01	0.01 $\pm$ 0.00
Tagged wh105	0.06 $\pm$ 0.01	0.66 $\pm$ 0.13	0.20 $\pm$ 0.04	0.04 $\pm$ 0.01	0.01 $\pm$ 0.00
Tagged wh110	0.05 $\pm$ 0.01	0.54 $\pm$ 0.11	0.18 $\pm$ 0.04	0.03 $\pm$ 0.01	0.01 $\pm$ 0.00
Tagged wh120	0.03 $\pm$ 0.01	0.42 $\pm$ 0.08	0.14 $\pm$ 0.03	0.03 $\pm$ 0.01	0.01 $\pm$ 0.00
Tagged wh125	0.02 $\pm$ 0.00	0.34 $\pm$ 0.07	0.12 $\pm$ 0.02	0.02 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh130	0.01 $\pm$ 0.00	0.26 $\pm$ 0.05	0.10 $\pm$ 0.02	0.02 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh135	0.01 $\pm$ 0.00	0.20 $\pm$ 0.04	0.07 $\pm$ 0.01	0.01 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh140	0.01 $\pm$ 0.00	0.14 $\pm$ 0.03	0.05 $\pm$ 0.01	0.01 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh145	0.00 $\pm$ 0.00	0.09 $\pm$ 0.02	0.04 $\pm$ 0.01	0.01 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh150	0.00 $\pm$ 0.00	0.06 $\pm$ 0.01	0.02 $\pm$ 0.00	0.00 $\pm$ 0.00	0.00 $\pm$ 0.00
Tagged wh120L	0.03 $\pm$ 0.01	0.42 $\pm$ 0.08	0.14 $\pm$ 0.03	0.03 $\pm$ 0.01	0.00 $\pm$ 0.00
Tagged wh120M	0.03 $\pm$ 0.01	0.39 $\pm$ 0.08	0.16 $\pm$ 0.03	0.04 $\pm$ 0.01	0.01 $\pm$ 0.00
Raw Mis-tags(info)	0.13 $\pm$ 0.07	0.80 $\pm$ 0.32	0.66 $\pm$ 0.24	0.29 $\pm$ 0.10	0.14 $\pm$ 0.05
Tagged Wbb	3.70 $\pm$ 1.30	17.88 $\pm$ 6.22	6.13 $\pm$ 2.11	1.88 $\pm$ 0.66	0.66 $\pm$ 0.23
Tagged Wcc	0.14 $\pm$ 0.05	1.23 $\pm$ 0.41	0.79 $\pm$ 0.26	0.32 $\pm$ 0.11	0.12 $\pm$ 0.04
Tagged Wcj	0.23 $\pm$ 0.08	1.12 $\pm$ 0.37	0.47 $\pm$ 0.16	0.14 $\pm$ 0.05	0.04 $\pm$ 0.01
Tagged Total HF	4.07 $\pm$ 1.43	20.23 $\pm$ 7.01	7.40 $\pm$ 2.52	2.34 $\pm$ 0.81	0.81 $\pm$ 0.28
Tagged Total MC	1.09 $\pm$ 0.22	17.90 $\pm$ 3.70	34.24 $\pm$ 6.99	39.62 $\pm$ 8.01	14.22 $\pm$ 2.87
Tagged Mistags	0.11 $\pm$ 0.06	0.54 $\pm$ 0.22	0.34 $\pm$ 0.13	0.09 $\pm$ 0.03	0.03 $\pm$ 0.01
Tagged Non-W	0.00 $\pm$ 0.50	0.00 $\pm$ 0.50	5.26 $\pm$ 2.10	0.00 $\pm$ 0.50	0.00 $\pm$ 0.50
Total Prediction	5.26 $\pm$ 1.53	38.68 $\pm$ 7.94	47.24 $\pm$ 7.73	42.05 $\pm$ 8.07	15.06 $\pm$ 2.92
Observed	6.00 $\pm$ 0.00	25.00 $\pm$ 0.00	34.00 $\pm$ 0.00	30.00 $\pm$ 0.00	22.00 $\pm$ 0.00

ISOTKm Muons

Process	1jet	2jets	3jets	4jets	5jets
All Pretag Candidates	34785.00 ± 0.00	14697.00 ± 0.00	3392.00 ± 0.00	858.00 ± 0.00	191.00 ± 0.00
Total Pretag Non-W (after MET cut)	14749.40 ± 5899.76	5530.16 ± 2212.06	1516.70 ± 606.68	211.65 ± 84.66	3.37 ± 1.35
Total Pretag ww (after MET cut)	149.86 ± 19.11	227.85 ± 29.03	61.73 ± 7.90	11.89 ± 1.56	2.16 ± 0.32
Total Pretag wz (after MET cut)	23.17 ± 3.30	41.60 ± 5.91	12.19 ± 1.74	2.27 ± 0.33	0.42 ± 0.07
Total Pretag zz (after MET cut)	1.51 ± 0.27	2.41 ± 0.42	1.02 ± 0.18	0.23 ± 0.04	0.05 ± 0.01
Total Pretag stops (after MET cut)	8.61 ± 1.13	26.76 ± 3.51	8.66 ± 1.14	1.85 ± 0.25	0.41 ± 0.06
Total Pretag stopt (after MET cut)	25.49 ± 3.69	38.86 ± 5.62	12.44 ± 1.80	2.40 ± 0.35	0.45 ± 0.07
Total Pretag zlf (after MET cut)	2349.92 ± 302.84	1014.09 ± 130.69	210.93 ± 27.19	35.28 ± 4.55	5.28 ± 0.68
Total Pretag top (after MET cut)	18.15 ± 2.35	114.08 ± 14.67	236.44 ± 30.38	223.02 ± 28.65	76.19 ± 9.80
Total Pretag wh115 (after MET cut)	1.32 ± 0.15	3.56 ± 0.40	1.08 ± 0.12	0.20 ± 0.02	0.03 ± 0.00
Total Pretag wh100 (after MET cut)	2.60 ± 0.29	5.53 ± 0.62	1.49 ± 0.17	0.27 ± 0.03	0.04 ± 0.01
Total Pretag wh105 (after MET cut)	2.18 ± 0.25	4.79 ± 0.54	1.38 ± 0.16	0.24 ± 0.03	0.04 ± 0.01
Total Pretag wh110 (after MET cut)	1.66 ± 0.19	4.10 ± 0.46	1.21 ± 0.14	0.22 ± 0.03	0.03 ± 0.00
Total Pretag wh120 (after MET cut)	1.02 ± 0.11	2.99 ± 0.34	0.94 ± 0.11	0.18 ± 0.02	0.03 ± 0.00
Total Pretag wh125 (after MET cut)	0.77 ± 0.09	2.42 ± 0.27	0.79 ± 0.09	0.14 ± 0.02	0.03 ± 0.00
Total Pretag wh130 (after MET cut)	0.54 ± 0.06	1.86 ± 0.21	0.62 ± 0.07	0.12 ± 0.01	0.02 ± 0.00
Total Pretag wh135 (after MET cut)	0.37 ± 0.04	1.38 ± 0.15	0.47 ± 0.05	0.09 ± 0.01	0.02 ± 0.00
Total Pretag wh140 (after MET cut)	0.24 ± 0.03	0.97 ± 0.11	0.34 ± 0.04	0.07 ± 0.01	0.01 ± 0.00
Total Pretag wh145 (after MET cut)	0.15 ± 0.02	0.63 ± 0.07	0.23 ± 0.03	0.05 ± 0.01	0.01 ± 0.00
Total Pretag wh150 (after MET cut)	0.09 ± 0.01	0.39 ± 0.04	0.15 ± 0.02	0.03 ± 0.00	0.01 ± 0.00
Total Pretag wh120L (after MET cut)	1.03 ± 0.12	3.00 ± 0.34	0.93 ± 0.11	0.15 ± 0.02	0.03 ± 0.00
Total Pretag wh120M (after MET cut)	0.98 ± 0.11	2.93 ± 0.33	1.02 ± 0.11	0.21 ± 0.02	0.04 ± 0.01
Total Pretag MC (after MET cut)	2576.70 ± 325.36	1465.65 ± 177.29	543.41 ± 64.27	276.94 ± 34.14	84.95 ± 10.68
Total Pretag Wbb (after MET cut)	303.55 ± 137.29	306.60 ± 127.54	91.77 ± 50.25	34.52 ± 13.42	12.48 ± 3.97
Total Pretag Wcc (after MET cut)	698.29 ± 315.81	640.94 ± 266.61	186.10 ± 101.90	70.04 ± 27.22	22.11 ± 7.02
Total Pretag Wcj (after MET cut)	1090.82 ± 493.34	573.18 ± 238.43	109.43 ± 59.92	29.74 ± 11.56	8.29 ± 2.64
Total Pretag Mistags (after MET cut)	15366.23 ± 5964.38	6180.47 ± 2278.53	944.59 ± 639.23	235.11 ± 100.31	59.81 ± 14.15
Total Pretag HF	2092.67 ± 812.94	1520.72 ± 516.75	387.30 ± 190.85	134.31 ± 41.59	42.88 ± 9.19
Total Pretag Corrected	17458.90 ± 5908.72	7701.19 ± 2219.16	1331.89 ± 610.07	369.42 ± 91.28	102.68 ± 10.76
Total LF Pretag Corrected	15366.23 ± 5964.38	6180.47 ± 2278.53	944.59 ± 639.23	235.11 ± 100.31	59.81 ± 14.15
Tagged ww	0.00 ± 0.00	0.09 ± 0.02	0.10 ± 0.02	0.06 ± 0.01	0.03 ± 0.01
Tagged wz	0.09 ± 0.02	0.78 ± 0.19	0.26 ± 0.06	0.06 ± 0.01	0.01 ± 0.00
Tagged zz	0.01 ± 0.00	0.05 ± 0.01	0.02 ± 0.01	0.01 ± 0.00	0.00 ± 0.00
Tagged stops	0.19 ± 0.04	3.59 ± 0.83	1.23 ± 0.28	0.30 ± 0.07	0.07 ± 0.02
Tagged stopt	0.11 ± 0.03	1.10 ± 0.27	1.18 ± 0.28	0.31 ± 0.07	0.05 ± 0.01
Tagged zlf	0.21 ± 0.05	0.96 ± 0.23	0.69 ± 0.17	0.18 ± 0.05	0.05 ± 0.01
Tagged top	0.42 ± 0.10	10.23 ± 2.36	29.99 ± 6.80	38.65 ± 8.63	14.56 ± 3.25
Tagged wh115	0.04 ± 0.01	0.48 ± 0.11	0.16 ± 0.03	0.03 ± 0.01	0.00 ± 0.00
Tagged wh100	0.07 ± 0.02	0.72 ± 0.16	0.21 ± 0.05	0.04 ± 0.01	0.01 ± 0.00
Tagged wh105	0.06 ± 0.01	0.62 ± 0.14	0.20 ± 0.04	0.04 ± 0.01	0.01 ± 0.00
Tagged wh110	0.05 ± 0.01	0.53 ± 0.12	0.17 ± 0.04	0.04 ± 0.01	0.01 ± 0.00
Tagged wh120	0.03 ± 0.01	0.40 ± 0.09	0.14 ± 0.03	0.03 ± 0.01	0.01 ± 0.00
Tagged wh125	0.02 ± 0.00	0.33 ± 0.07	0.12 ± 0.03	0.02 ± 0.01	0.00 ± 0.00
Tagged wh130	0.01 ± 0.00	0.25 ± 0.06	0.09 ± 0.02	0.02 ± 0.00	0.00 ± 0.00
Tagged wh135	0.01 ± 0.00	0.19 ± 0.04	0.07 ± 0.02	0.01 ± 0.00	0.00 ± 0.00
Tagged wh140	0.01 ± 0.00	0.13 ± 0.03	0.05 ± 0.01	0.01 ± 0.00	0.00 ± 0.00
Tagged wh145	0.00 ± 0.00	0.09 ± 0.02	0.03 ± 0.01	0.01 ± 0.00	0.00 ± 0.00
Tagged wh150	0.00 ± 0.00	0.05 ± 0.01	0.02 ± 0.00	0.01 ± 0.00	0.00 ± 0.00
Tagged wh120L	0.03 ± 0.01	0.40 ± 0.09	0.14 ± 0.03	0.03 ± 0.01	0.00 ± 0.00
Tagged wh120M	0.02 ± 0.01	0.38 ± 0.08	0.15 ± 0.03	0.03 ± 0.01	0.01 ± 0.00
Raw Mis-tags(info)	0.28 ± 0.14	1.36 ± 0.54	1.00 ± 0.36	0.51 ± 0.19	0.20 ± 0.07
Tagged Wbb	2.83 ± 1.39	16.68 ± 7.54	6.11 ± 3.50	2.75 ± 1.16	1.12 ± 0.40
Tagged Wcc	0.10 ± 0.05	1.18 ± 0.52	0.74 ± 0.42	0.45 ± 0.19	0.22 ± 0.08
Tagged Wcj	0.15 ± 0.07	1.05 ± 0.46	0.44 ± 0.25	0.19 ± 0.08	0.08 ± 0.03
Tagged Total HF	3.09 ± 1.45	18.91 ± 8.13	7.29 ± 3.77	3.40 ± 1.34	1.42 ± 0.50
Tagged Total MC	1.02 ± 0.23	16.81 ± 3.82	33.48 ± 7.55	39.57 ± 8.83	14.78 ± 3.29
Tagged Mistags	0.12 ± 0.08	0.57 ± 0.31	0.28 ± 0.21	0.14 ± 0.08	0.06 ± 0.03
Tagged Non-W	2.65 ± 1.06	5.63 ± 2.25	8.39 ± 3.36	1.53 ± 1.22	0.66 ± 0.53
Total Prediction	6.89 ± 1.81	41.92 ± 9.26	49.44 ± 9.08	44.63 ± 9.01	16.93 ± 3.37
Observed	7.00 ± 0.00	47.00 ± 0.00	45.00 ± 0.00	46.00 ± 0.00	20.00 ± 0.00

ISOTKh Muons

Process	1jet	2jets	3jets	4jets	5jets
All Pretag Candidates	32392.00 ± 0.00	6521.00 ± 0.00	1140.00 ± 0.00	235.00 ± 0.00	44.00 ± 0.00
Total Pretag Non-W (after MET cut)	3833.46 ± 1533.38	1143.53 ± 457.41	270.12 ± 108.05	59.86 ± 23.94	10.38 ± 4.15
Total Pretag ww (after MET cut)	179.23 ± 22.85	180.69 ± 23.03	36.66 ± 4.71	5.38 ± 0.73	0.86 ± 0.15
Total Pretag wz (after MET cut)	26.70 ± 3.80	27.50 ± 3.91	5.59 ± 0.80	0.88 ± 0.14	0.14 ± 0.03
Total Pretag zz (after MET cut)	2.21 ± 0.39	0.81 ± 0.15	0.23 ± 0.04	0.04 ± 0.01	0.01 ± 0.00
Total Pretag stops (after MET cut)	7.54 ± 0.99	15.97 ± 2.10	4.28 ± 0.57	0.87 ± 0.12	0.18 ± 0.03
Total Pretag stopt (after MET cut)	22.51 ± 3.26	26.00 ± 3.76	6.82 ± 0.99	1.08 ± 0.16	0.17 ± 0.03
Total Pretag zlf (after MET cut)	426.68 ± 54.99	129.95 ± 16.75	28.02 ± 3.61	4.74 ± 0.61	0.79 ± 0.11
Total Pretag top (after MET cut)	19.08 ± 2.47	81.98 ± 10.55	125.35 ± 16.11	95.66 ± 12.30	27.18 ± 3.51
Total Pretag wh115 (after MET cut)	1.02 ± 0.12	2.09 ± 0.24	0.53 ± 0.06	0.08 ± 0.01	0.01 ± 0.00
Total Pretag wh100 (after MET cut)	2.02 ± 0.23	3.30 ± 0.37	0.74 ± 0.08	0.11 ± 0.01	0.01 ± 0.00
Total Pretag wh105 (after MET cut)	1.61 ± 0.18	2.88 ± 0.32	0.67 ± 0.08	0.10 ± 0.01	0.01 ± 0.00
Total Pretag wh110 (after MET cut)	1.30 ± 0.15	2.47 ± 0.28	0.59 ± 0.07	0.08 ± 0.01	0.01 ± 0.00
Total Pretag wh120 (after MET cut)	0.76 ± 0.09	1.72 ± 0.19	0.45 ± 0.05	0.07 ± 0.01	0.01 ± 0.00
Total Pretag wh125 (after MET cut)	0.56 ± 0.06	1.34 ± 0.15	0.37 ± 0.04	0.06 ± 0.01	0.01 ± 0.00
Total Pretag wh130 (after MET cut)	0.40 ± 0.05	1.04 ± 0.12	0.29 ± 0.03	0.05 ± 0.01	0.01 ± 0.00
Total Pretag wh135 (after MET cut)	0.27 ± 0.03	0.75 ± 0.08	0.23 ± 0.03	0.04 ± 0.00	0.01 ± 0.00
Total Pretag wh140 (after MET cut)	0.18 ± 0.02	0.52 ± 0.06	0.17 ± 0.02	0.03 ± 0.00	0.00 ± 0.00
Total Pretag wh145 (after MET cut)	0.11 ± 0.01	0.35 ± 0.04	0.11 ± 0.01	0.02 ± 0.00	0.00 ± 0.00
Total Pretag wh150 (after MET cut)	0.06 ± 0.01	0.21 ± 0.02	0.07 ± 0.01	0.01 ± 0.00	0.00 ± 0.00
Total Pretag wh120L (after MET cut)	0.76 ± 0.09	1.73 ± 0.19	0.43 ± 0.05	0.07 ± 0.01	0.01 ± 0.00
Total Pretag wh120M (after MET cut)	0.71 ± 0.08	1.65 ± 0.19	0.48 ± 0.05	0.09 ± 0.01	0.02 ± 0.00
Total Pretag MC (after MET cut)	683.95 ± 82.14	462.90 ± 54.06	206.95 ± 24.70	108.66 ± 13.60	29.33 ± 3.72
Total Pretag Wbb (after MET cut)	392.10 ± 119.60	195.83 ± 61.55	48.87 ± 16.78	5.91 ± 3.02	0.52 ± 0.70
Total Pretag Wcc (after MET cut)	996.15 ± 303.84	382.61 ± 120.25	89.57 ± 30.76	11.60 ± 5.94	0.96 ± 1.28
Total Pretag Wcj (after MET cut)	1704.40 ± 519.87	375.06 ± 117.88	53.05 ± 18.22	5.28 ± 2.70	0.35 ± 0.46
Total Pretag Mistags (after MET cut)	24781.94 ± 1658.80	3961.08 ± 499.42	471.44 ± 120.41	43.69 ± 29.42	2.46 ± 6.07
Total Pretag HF	3092.65 ± 627.39	953.49 ± 193.06	191.49 ± 47.07	22.80 ± 10.34	1.83 ± 2.40
Total Pretag Corrected	27874.59 ± 1535.58	4914.58 ± 460.59	662.93 ± 110.83	66.48 ± 27.54	4.29 ± 5.58
Total LF Pretag Corrected	24781.94 ± 1658.80	3961.08 ± 499.42	471.44 ± 120.41	43.69 ± 29.42	2.46 ± 6.07
Tagged ww	0.00 ± 0.00	0.06 ± 0.01	0.06 ± 0.01	0.04 ± 0.01	0.00 ± 0.00
Tagged wz	0.11 ± 0.03	0.55 ± 0.13	0.14 ± 0.03	0.01 ± 0.00	0.01 ± 0.00
Tagged zz	0.00 ± 0.00	0.01 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00
Tagged stops	0.15 ± 0.04	2.16 ± 0.50	0.61 ± 0.14	0.17 ± 0.04	0.04 ± 0.01
Tagged stopt	0.09 ± 0.02	0.68 ± 0.16	0.61 ± 0.14	0.14 ± 0.03	0.03 ± 0.01
Tagged zlf	0.03 ± 0.01	0.17 ± 0.04	0.11 ± 0.03	0.03 ± 0.01	0.01 ± 0.00
Tagged top	0.33 ± 0.08	8.06 ± 1.85	16.09 ± 3.64	16.59 ± 3.71	5.00 ± 1.11
Tagged wh115	0.02 ± 0.01	0.28 ± 0.06	0.08 ± 0.02	0.01 ± 0.00	0.00 ± 0.00
Tagged wh100	0.06 ± 0.01	0.43 ± 0.10	0.10 ± 0.02	0.02 ± 0.00	0.00 ± 0.00
Tagged wh105	0.04 ± 0.01	0.38 ± 0.08	0.10 ± 0.02	0.02 ± 0.00	0.00 ± 0.00
Tagged wh110	0.03 ± 0.01	0.33 ± 0.07	0.08 ± 0.02	0.02 ± 0.00	0.00 ± 0.00
Tagged wh120	0.02 ± 0.00	0.23 ± 0.05	0.07 ± 0.01	0.01 ± 0.00	0.00 ± 0.00
Tagged wh125	0.01 ± 0.00	0.18 ± 0.04	0.06 ± 0.01	0.01 ± 0.00	0.00 ± 0.00
Tagged wh130	0.01 ± 0.00	0.14 ± 0.03	0.04 ± 0.01	0.01 ± 0.00	0.00 ± 0.00
Tagged wh135	0.01 ± 0.00	0.10 ± 0.02	0.04 ± 0.01	0.01 ± 0.00	0.00 ± 0.00
Tagged wh140	0.00 ± 0.00	0.07 ± 0.02	0.02 ± 0.01	0.00 ± 0.00	0.00 ± 0.00
Tagged wh145	0.00 ± 0.00	0.05 ± 0.01	0.02 ± 0.00	0.00 ± 0.00	0.00 ± 0.00
Tagged wh150	0.00 ± 0.00	0.03 ± 0.01	0.01 ± 0.00	0.00 ± 0.00	0.00 ± 0.00
Tagged wh120L	0.02 ± 0.00	0.23 ± 0.05	0.07 ± 0.01	0.01 ± 0.00	0.00 ± 0.00
Tagged wh120M	0.02 ± 0.00	0.22 ± 0.05	0.07 ± 0.01	0.01 ± 0.00	0.00 ± 0.00
Raw Mis-tags(info)	0.15 ± 0.06	0.67 ± 0.24	0.43 ± 0.16	0.17 ± 0.06	0.04 ± 0.01
Tagged Wbb	3.22 ± 1.15	9.58 ± 3.46	3.24 ± 1.24	0.46 ± 0.25	0.05 ± 0.07
Tagged Wcc	0.14 ± 0.05	0.66 ± 0.22	0.37 ± 0.14	0.08 ± 0.04	0.01 ± 0.02
Tagged Wcj	0.25 ± 0.09	0.64 ± 0.22	0.22 ± 0.08	0.03 ± 0.02	0.01 ± 0.01
Tagged Total HF	3.61 ± 1.29	10.88 ± 3.88	3.83 ± 1.42	0.57 ± 0.27	0.07 ± 0.07
Tagged Total MC	0.71 ± 0.16	11.69 ± 2.64	17.61 ± 3.97	16.98 ± 3.79	5.09 ± 1.13
Tagged Mistags	0.12 ± 0.05	0.41 ± 0.15	0.18 ± 0.08	0.03 ± 0.02	0.00 ± 0.01
Tagged Non-W	3.40 ± 1.36	2.40 ± 0.96	0.46 ± 0.50	0.14 ± 0.50	0.04 ± 0.50
Total Prediction	7.84 ± 1.88	25.38 ± 4.79	22.08 ± 4.24	17.72 ± 3.83	5.20 ± 1.24
Observed	4.00 ± 0.00	21.00 ± 0.00	19.00 ± 0.00	18.00 ± 0.00	5.00 ± 0.00

All detectors

Process	1jet	2jets	3jets	4jets	5jets
All Pretag Candidates	779979.00 ± 0.00	145273.00 ± 0.00	26020.00 ± 0.00	5830.00 ± 0.00	1375.00 ± 0.00
Total Pretag Non-W (after MET cut)	100738.15 ± 25144.47	30718.90 ± 7652.07	6696.50 ± 1572.89	1030.82 ± 259.64	167.09 ± 52.43
Total Pretag ww (after MET cut)	2627.80 ± 224.22	2913.97 ± 248.95	601.20 ± 51.55	104.33 ± 9.01	18.49 ± 1.65
Total Pretag wz (after MET cut)	367.84 ± 38.95	467.30 ± 49.52	109.32 ± 11.61	18.43 ± 1.97	3.34 ± 0.37
Total Pretag zz (after MET cut)	19.12 ± 2.80	19.87 ± 2.90	8.11 ± 1.19	1.81 ± 0.27	0.40 ± 0.06
Total Pretag stops (after MET cut)	102.34 ± 9.32	245.98 ± 22.44	76.20 ± 6.96	16.50 ± 1.51	3.36 ± 0.31
Total Pretag stopt (after MET cut)	315.03 ± 34.53	388.61 ± 42.64	114.01 ± 12.52	21.35 ± 2.35	3.60 ± 0.40
Total Pretag zlf (after MET cut)	33061.85 ± 2897.59	8003.47 ± 705.97	1481.33 ± 130.99	238.35 ± 21.10	37.94 ± 3.36
Total Pretag top (after MET cut)	189.58 ± 16.64	1012.84 ± 88.79	1966.10 ± 172.27	1814.36 ± 158.91	597.62 ± 52.38
Total Pretag wh115 (after MET cut)	14.62 ± 0.89	34.39 ± 2.10	9.40 ± 0.58	1.67 ± 0.10	0.28 ± 0.02
Total Pretag wh100 (after MET cut)	31.20 ± 1.90	55.35 ± 3.38	13.21 ± 0.81	2.22 ± 0.14	0.35 ± 0.02
Total Pretag wh105 (after MET cut)	24.57 ± 1.50	48.00 ± 2.93	12.00 ± 0.74	2.05 ± 0.13	0.32 ± 0.02
Total Pretag wh110 (after MET cut)	18.74 ± 1.14	40.15 ± 2.45	10.31 ± 0.63	1.74 ± 0.11	0.28 ± 0.02
Total Pretag wh120 (after MET cut)	11.00 ± 0.67	28.19 ± 1.72	8.01 ± 0.49	1.43 ± 0.09	0.24 ± 0.02
Total Pretag wh125 (after MET cut)	8.05 ± 0.49	22.25 ± 1.36	6.60 ± 0.41	1.19 ± 0.07	0.20 ± 0.01
Total Pretag wh130 (after MET cut)	5.68 ± 0.35	16.93 ± 1.04	5.24 ± 0.32	0.97 ± 0.06	0.17 ± 0.01
Total Pretag wh135 (after MET cut)	3.83 ± 0.23	12.34 ± 0.76	3.97 ± 0.24	0.75 ± 0.05	0.13 ± 0.01
Total Pretag wh140 (after MET cut)	2.50 ± 0.15	8.53 ± 0.52	2.85 ± 0.18	0.56 ± 0.03	0.09 ± 0.01
Total Pretag wh145 (after MET cut)	1.52 ± 0.09	5.60 ± 0.34	1.92 ± 0.12	0.39 ± 0.02	0.07 ± 0.00
Total Pretag wh150 (after MET cut)	0.87 ± 0.05	3.39 ± 0.21	1.20 ± 0.07	0.24 ± 0.02	0.04 ± 0.00
Total Pretag wh120L (after MET cut)	11.03 ± 0.67	28.28 ± 1.73	7.88 ± 0.48	1.33 ± 0.08	0.20 ± 0.01
Total Pretag wh120M (after MET cut)	10.35 ± 0.63	27.24 ± 1.67	8.64 ± 0.53	1.72 ± 0.11	0.34 ± 0.02
Total Pretag MC (after MET cut)	36683.56 ± 1537.10	13052.04 ± 466.37	4356.27 ± 150.99	2215.13 ± 85.87	664.74 ± 26.83
Total Pretag Wbb (after MET cut)	8691.66 ± 1365.09	3788.66 ± 596.55	984.06 ± 169.02	244.41 ± 42.10	64.92 ± 11.33
Total Pretag Wcc (after MET cut)	22167.36 ± 3497.24	8040.37 ± 1266.55	1992.99 ± 342.81	478.33 ± 81.29	119.66 ± 20.75
Total Pretag Wcj (after MET cut)	41396.04 ± 6619.08	8420.82 ± 1371.40	1351.14 ± 240.29	227.83 ± 40.31	46.83 ± 8.48
Total Pretag Mistags (after MET cut)	570302.23 ± 26407.19	81252.22 ± 8010.93	10639.04 ± 1684.41	1633.49 ± 302.14	311.77 ± 66.98
Total Pretag HF	72255.07 ± 7920.41	20249.84 ± 2324.48	4328.19 ± 583.48	950.57 ± 128.45	231.40 ± 31.90
Total Pretag Corrected	642557.29 ± 25191.41	101502.06 ± 7666.27	14967.23 ± 1580.12	2584.06 ± 273.48	543.18 ± 58.90
Total LF Pretag Corrected	570302.23 ± 26407.19	81252.22 ± 8010.93	10639.04 ± 1684.41	1633.49 ± 302.14	311.77 ± 66.98
Tagged ww	0.07 ± 0.01	0.91 ± 0.20	0.88 ± 0.17	0.61 ± 0.12	0.16 ± 0.03
Tagged wz	1.40 ± 0.31	9.08 ± 2.00	2.33 ± 0.51	0.38 ± 0.08	0.10 ± 0.02
Tagged zz	0.05 ± 0.01	0.35 ± 0.09	0.20 ± 0.05	0.07 ± 0.02	0.01 ± 0.00
Tagged stops	2.07 ± 0.44	32.86 ± 6.99	11.40 ± 2.40	2.72 ± 0.56	0.61 ± 0.12
Tagged stopt	1.50 ± 0.33	10.32 ± 2.29	10.47 ± 2.30	2.80 ± 0.61	0.56 ± 0.12
Tagged zlf	1.86 ± 0.41	6.85 ± 1.52	4.59 ± 1.02	1.43 ± 0.32	0.45 ± 0.10
Tagged top	3.87 ± 0.82	92.93 ± 19.60	255.39 ± 52.60	321.78 ± 65.28	114.41 ± 23.11
Tagged wh115	0.38 ± 0.08	4.57 ± 0.92	1.40 ± 0.28	0.27 ± 0.05	0.05 ± 0.01
Tagged wh100	0.86 ± 0.17	7.04 ± 1.42	1.84 ± 0.37	0.34 ± 0.07	0.06 ± 0.01
Tagged wh105	0.67 ± 0.14	6.26 ± 1.27	1.74 ± 0.35	0.32 ± 0.06	0.05 ± 0.01
Tagged wh110	0.51 ± 0.10	5.27 ± 1.07	1.49 ± 0.30	0.28 ± 0.06	0.05 ± 0.01
Tagged wh120	0.27 ± 0.05	3.80 ± 0.77	1.19 ± 0.24	0.23 ± 0.04	0.04 ± 0.01
Tagged wh125	0.20 ± 0.04	3.01 ± 0.61	0.99 ± 0.20	0.19 ± 0.04	0.03 ± 0.01
Tagged wh130	0.13 ± 0.03	2.32 ± 0.47	0.81 ± 0.16	0.16 ± 0.03	0.03 ± 0.01
Tagged wh135	0.09 ± 0.02	1.68 ± 0.34	0.60 ± 0.12	0.12 ± 0.02	0.02 ± 0.00
Tagged wh140	0.05 ± 0.01	1.18 ± 0.24	0.44 ± 0.09	0.09 ± 0.02	0.02 ± 0.00
Tagged wh145	0.03 ± 0.01	0.78 ± 0.16	0.29 ± 0.06	0.06 ± 0.01	0.01 ± 0.00
Tagged wh150	0.02 ± 0.00	0.47 ± 0.10	0.19 ± 0.04	0.04 ± 0.01	0.01 ± 0.00
Tagged wh120L	0.28 ± 0.06	3.83 ± 0.77	1.17 ± 0.23	0.22 ± 0.04	0.03 ± 0.01
Tagged wh120M	0.26 ± 0.05	3.54 ± 0.72	1.25 ± 0.25	0.28 ± 0.06	0.06 ± 0.01
Raw Mis-tags(info)	2.21 ± 1.04	9.58 ± 3.80	7.21 ± 2.61	3.31 ± 1.18	1.33 ± 0.48
Tagged Wbb	62.33 ± 22.03	181.97 ± 65.03	61.08 ± 22.02	18.79 ± 6.70	6.21 ± 2.21
Tagged Wcc	2.34 ± 0.81	11.67 ± 3.97	6.93 ± 2.38	3.00 ± 1.03	1.25 ± 0.43
Tagged Wcj	4.34 ± 1.50	12.12 ± 4.12	4.67 ± 1.61	1.43 ± 0.49	0.49 ± 0.17
Tagged Total HF	69.00 ± 24.31	205.76 ± 72.75	72.68 ± 25.69	23.22 ± 8.10	7.94 ± 2.76
Tagged Total MC	10.82 ± 2.22	153.30 ± 31.64	285.26 ± 58.37	329.80 ± 66.80	116.31 ± 23.47
Tagged Mistags	1.57 ± 0.73	5.35 ± 2.17	2.94 ± 1.16	0.94 ± 0.37	0.30 ± 0.13
Tagged Non-W	12.93 ± 5.67	30.44 ± 12.67	24.65 ± 10.68	6.03 ± 7.22	2.65 ± 4.59
Total Prediction	94.33 ± 25.07	394.85 ± 80.37	385.53 ± 64.67	359.99 ± 67.68	127.21 ± 24.07
Observed	98.00 ± 0.00	339.00 ± 0.00	359.00 ± 0.00	308.00 ± 0.00	153.00 ± 0.00