3 Gen5 Event Lists

Run	Event	H_T	# Jets	MET	Tight tags	Loose Tags	Lepton	Gen4
Electrons								
141618	1968597	232.60	3	58.47	1	1	CEM	y
144674	1782954	252.70	3	31.76	1	1	CEM	y
150395	98852	140.71	3	25.24	1	1	CEM	–
150418	1033033	112.93	3	23.66	1	1	CEM	–
151869	690782	177.95	3	38.37	1	1	CEM	n
155145	132579	270.88	3	43.62	2	2	CEM	y
155345	3194866	190.73	3	64.10	1	1	CEM	y
155793	4312618	260.83	3	40.71	1	1	CEM	n
156116	6116596	249.91	3	30.61	2	3	CEM	4
160599	129700	187.11	3	23.74	1	0	CEM	n
161678	1080224	197.91	3	70.49	2	2	CEM	n
162178	2690653	208.37	3	48.96	1	1	CEM	y
162663	80178	218.34	3	42.29	2	2	CEM	y
162837	433408	392.35	3	28.83	2	2	CEM	n
162857	4107280	258.47	3	31.66	1	1	CEM	n
164451	7530950	201.36	3	51.21	1	1	CEM	n
164989	1594353	318.25	3	28.79	1	1	CEM	n
165121	428911	382.55	3	50.98	1	2	CEM	y
165271	6116896	345.16	3	146.13	1	1	CEM	n
165836	566421	241.04	3	34.80	1	0	CEM	y
165902	1487424	260.04	3	66.67	1	1	CEM	y
166007	498553	275.42	3	56.55	1	2	CEM	4
166037	1912411	144.06	3	26.45	1	1	CEM	y
166479	4910255	192.16	3	58.11	1	1	CEM	n
166567	6377008	164.25	3	43.88	1	1	CEM	y
166615	6805282	178.08	3	23.55	1	2	CEM	y
166927	8307431	283.21	3	21.26	1	1	CEM	n
167053	5091995	301.44	3	21.95	1	1	CEM	n
167053	7442159	231.50	3	39.63	1	1	CEM	n

Table 1: Electron events in the $W + 3$ sample with at least one tight SecVtx tagged jet. The last column indicates if the event was already present in the Gen4 sample. This table includes only the run-range common to the Gen4 analysis.

Run	Event	H_T	# Jets	MET	Tight tags	Loose Tags	Lepton	Gen4
Electrons (continuation)								
167977	703804	251.95	3	50.28	1	1	CEM	–
167977	785542	418.22	3	44.87	2	2	CEM	–
168599	3427662	252.41	3	34.91	2	2	CEM	–
168889	12039476	318.83	3	34.78	2	2	CEM	–
176651	297931	164.63	3	40.77	1	1	CEM	–
177314	4056160	252.16	3	99.80	1	1	CEM	–
177927	3216152	362.10	3	83.00	1	1	CEM	–
178389	322702	308.72	3	43.68	1	1	CEM	–
178738	10453838	324.96	3	38.00	1	1	CEM	–
178759	1601160	200.22	3	58.35	2	2	CEM	–
178882	1300078	317.17	3	54.58	2	2	CEM	–
183209	281684	206.42	3	21.03	1	1	CEM	–
183557	1258104	170.59	3	25.91	1	1	CEM	–
183785	3862531	229.93	3	56.47	1	2	CEM	–
184068	2338573	233.57	3	40.04	1	2	CEM	–
184377	11014941	258.20	3	25.83	1	1	CEM	–
184495	1152315	619.12	3	35.04	1	1	CEM	–
184495	4025111	402.34	3	79.13	1	1	CEM	–
184832	7457593	221.32	3	30.65	1	1	CEM	–
185037	3988707	179.62	3	32.35	1	1	CEM	–
185249	1839747	163.48	3	42.86	1	1	CEM	–
185249	5691924	307.63	3	118.10	1	2	CEM	–
185260	4464842	537.14	3	37.93	2	2	CEM	–
185281	18790239	254.42	3	61.40	1	1	CEM	–
185332	11657514	183.96	3	47.58	1	1	CEM	–
185332	12612503	154.27	3	29.76	1	1	CEM	–
185332	14950478	250.48	3	26.78	1	1	CEM	–
185332	16515484	204.32	3	38.84	1	1	CEM	–
185634	6538828	189.44	3	49.79	1	1	CEM	–
186084	3182017	158.16	3	35.81	1	1	CEM	–

Table 2: Electron events in the $W + 3$ sample with at least one tight SecVtx tagged jet. The last column indicates if the event was already present in the Gen4 sample. This table includes only the runs after the Gen4 analysis data taking period.

Run	Event	H_T	# Jets	MET	Tight tags	Loose Tags	Lepton	Gen4
Muons								
141597	1353293	204.84	3	28.11	2	2	CMUP	y
152615	1274128	163.68	3	50.47	1	1	CMUP	n
154021	1352107	316.89	3	24.82	2	2	CMUP	n
160406	154621	207.42	3	25.39	1	1	CMX	y
161171	1163361	352.68	3	26.13	1	1	CMX	n
162631	7109631	221.78	3	24.69	1	1	CMX	4
164274	2932602	208.22	3	33.95	1	1	CMUP	y
165121	7186180	140.54	3	44.43	1	1	CMUP	n
166325	1249548	151.31	3	25.75	1	1	CMX	n
166567	490760	256.12	3	95.47	2	2	CMX	y
166771	846042	135.04	3	33.19	1	1	CMUP	n
166779	3800533	245.84	3	82.34	1	1	CMUP	n
166927	5822870	266.57	3	33.87	1	1	CMX	y
167259	1142209	175.03	3	34.06	1	1	CMUP	n
167297	535675	187.23	3	34.35	1	1	CMUP	n
167954	4519267	204.69	3	21.77	1	2	CMUP	–
177628	1517364	159.33	3	45.93	1	1	CMUP	–
178071	282015	199.48	3	23.55	1	1	CMX	–
178390	3929243	294.18	3	66.92	1	1	CMUP	–
178738	5844388	224.45	3	46.58	1	1	CMUP	–
178852	2167379	326.92	3	47.07	1	1	CMUP	–
178881	10612822	153.49	3	23.91	1	1	CMUP	–
182874	78353	168.86	3	33.98	1	1	CMUP	–
183530	4037862	221.11	3	75.88	1	1	CMUP	–
183557	1288983	337.56	3	44.08	2	2	CMUP	–
183965	4462113	311.72	3	82.03	1	1	CMX	–
183965	7773800	183.12	3	25.06	1	1	CMUP	–
184015	737953	199.02	3	33.48	1	2	CMUP	–
184377	11678359	243.27	3	37.19	1	1	CMUP	–
184445	609320	220.84	3	71.56	1	1	CMUP	–
184762	2561196	344.00	3	63.20	2	2	CMUP	–
184765	405764	325.20	3	88.12	1	1	CMX	–
184802	3421801	199.31	3	24.79	2	2	CMUP	–
185037	4098975	247.51	3	66.07	1	1	CMX	–
185848	10192934	175.58	3	61.90	1	1	CMX	–
186145	6729198	365.15	3	36.75	1	1	CMUP	–

Table 3: Muon events in the $W+3$ sample with at least one tight SecVtx tagged jet. The last column indicates if the event was already present in the Gen4 sample.

Run	Event	H_T	# Jets	MET	Tight tags	Loose Tags	Lepton	Gen4
Electrons								
153694	1694029	301.30	4	31.45	2	2	CEM	y
153738	205803	302.74	4	83.74	2	2	CEM	n
153738	2083102	333.13	4	64.16	1	1	CEM	y
154175	1630925	336.15	4	122.47	1	1	CEM	y
155320	480816	243.58	4	29.26	1	1	CEM	y
155919	2689969	269.26	4	47.42	1	2	CEM	n
156457	13182	236.68	4	66.04	1	1	CEM	n
160153	1270879	333.64	4	55.81	1	1	CEM	y
160230	805211	342.60	4	84.39	2	2	CEM	n
160441	3910866	422.07	4	53.87	1	2	CEM	n
160594	290458	275.33	4	42.15	1	1	CEM	n
161633	1571961	269.39	4	32.75	1	1	CEM	y
161792	391660	235.38	4	55.87	1	1	CEM	n
162423	261933	218.59	4	33.50	1	1	CEM	y
164110	954852	224.00	4	41.33	2	2	CEM	n
164274	1449940	215.86	4	23.99	1	1	CEM	n
164819	1242550	404.16	4	42.76	1	1	CEM	y
165314	236898	295.43	4	32.41	1	2	CEM	n
166614	804529	356.98	4	28.56	2	2	CEM	y
166653	1499964	325.57	4	37.63	2	2	CEM	n
166715	357810	190.13	4	41.59	1	1	CEM	n
166717	3530653	217.54	4	44.08	1	1	CEM	n
167053	12401969	275.33	4	24.12	1	1	CEM	n
168563	2395692	253.72	4	49.81	1	1	CEM	n
177314	2950396	256.78	4	68.64	1	2	CEM	–
177345	3135596	296.53	4	55.09	1	0	CEM	–
178258	782935	264.97	4	65.80	1	1	CEM	–
178677	4378990	338.87	4	65.07	1	1	CEM	–
183209	1059754	204.01	4	21.27	1	1	CEM	–
183631	31445	168.80	4	26.79	1	1	CEM	–
183752	3562502	281.63	4	75.19	1	1	CEM	–
184419	291129	335.62	4	52.72	1	1	CEM	–
184453	19917	396.54	4	104.07	1	1	CEM	–
184782	2170277	297.84	4	75.81	1	1	CEM	–
185075	4388549	331.42	4	36.75	1	1	CEM	–
185332	1622825	354.65	4	34.99	1	1	CEM	–
185349	57399	326.66	4	22.38	2	2	CEM	–
185777	5392044	191.18	4	20.89	1	1	CEM	–
186145	9795252	263.58	4	21.14	1	1	CEM	–

Table 4: Electron events in the $W + 4$ sample with at least one tight SecVtx tagged jet. The last column indicates if the event was already present in the Gen4 sample.

Run	Event	H_T	# Jets	MET	Tight tags	Loose Tags	Lepton	Gen4
Muons								
145036	245760	288.95	4	64.53	1	1	CMUP	y
152266	3554	214.01	4	41.46	1	1	CMUP	y
153693	799494	345.11	4	40.97	2	2	CMUP	y
154654	6534372	317.83	4	44.32	1	1	CMX	–
160437	280173	262.51	4	33.16	1	1	CMUP	y
161788	361577	439.65	4	71.54	2	2	CMUP	y
162837	921871	255.08	4	37.06	1	1	CMUP	n
163012	2249546	300.07	4	26.19	1	2	CMUP	y
166367	516271	213.21	4	36.89	2	2	CMX	n
166529	4938	216.12	4	42.61	1	1	CMUP	n
166567	11615607	323.65	4	58.83	1	2	CMUP	y
166717	2288892	350.42	4	60.49	2	2	CMUP	n
166805	2534588	308.46	4	48.87	1	1	CMUP	y
167139	1191211	254.76	4	63.83	2	2	CMX	y
168889	1456443	247.66	4	32.98	1	2	CMUP	–
178120	86683	244.69	4	21.23	1	1	CMUP	–
178785	1428968	291.83	4	63.03	1	1	CMX	–
178855	5504617	326.53	4	45.73	2	3	CMUP	–
179039	2128943	318.58	4	69.53	2	3	CMX	–
184832	12978334	249.42	4	59.41	1	1	CMX	–
185248	8569330	280.83	4	23.89	2	2	CMUP	–
185332	4430084	357.69	4	53.99	1	2	CMUP	–
185518	330101	355.39	4	21.03	1	1	CMUP	–
186087	17361	249.65	4	51.82	2	2	CMUP	–

Table 5: Muon events in the $W + 4$ sample with at least one tight SecVtx tagged jet. The last column indicates if the event was already present in the Gen4 sample.

Run	Event	H_T	# Jets	MET	Tight tags	Loose Tags	Lepton	Gen4
Electrons								
161013	111162	416.53	5	82.76	1	1	CEM	y
161414	68227	352.63	5	65.27	1	1	CEM	n
162986	1538897	389.02	5	56.99	2	2	CEM	y
163519	1262057	256.79	5	68.12	1	1	CEM	n
167551	7969376	311.52	5	63.31	1	2	CEM	y
178761	1716435	402.16	5	62.93	1	1	CEM	–
178761	2861250	342.78	7	33.41	1	1	CEM	–
184519	377410	303.93	5	36.32	1	1	CEM	–
Muons								
155409	1291806	544.16	7	63.99	1	1	CMUP	–
162837	1447297	322.62	5	44.32	1	2	CMX	n
166779	3652540	463.46	5	135.87	1	1	CMUP	n
167551	3626393	256.73	5	48.07	3	3	CMUP	y
183126	45329	530.31	5	149.31	1	1	CMUP	–
185172	2492855	359.10	6	29.63	1	1	CMX	–
185377	5133539	310.35	5	40.66	2	2	CMUP	–
185379	300012	300.01	5	21.48	1	1	CMUP	–
185594	10091587	249.88	6	42.83	1	1	CMX	–
185848	7195410	337.37	5	52.57	1	1	CMUP	–
186145	4971965	263.24	5	36.71	1	2	CMX	–

Table 6: Events in the $W+\geq 5$ sample with at least one tight SecVtx tagged jet. The last column indicates if the event was already present in the Gen4 sample.