

Exercise

Data reconstructed by one LHC Detector

N	1st Muon						2nd Muon						Combined Info
	p _x [GeV]	p _y [GeV]	p _z [GeV]	Charge	Isolation		p _x [GeV]	p _y [GeV]	p _z [GeV]	Charge	Isolation		Inv. Mass [GeV]
1	-3.9	-47.4	-171.7	1	1		27.4	31.4	-62.0	-1	1		92.3
2	-43.9	-14.4	24.5	1	1		41.9	9.0	31.3	1	1		72.2
3	10.8	33.7	-44.4	-1	1		-16.7	-18.2	3.5	1	1		71.2
4	17.6	15.4	-100.0	-1	2		-4.3	-17.7	56.4	1	2		76.3
5	-12.6	15.9	-39.5	-1	3		11.5	-15.1	32.4	-1	2		81.7
6	16.9	-11.6	-31.7	-1	1		-17.1	9.9	41.0	-1	2		78.3
7	-50.7	-19.5	-73.9	1	1		36.4	6.1	-30.0	-1	1		89.9
8	-39.4	14.9	-143.1	1	1		31.0	-17.0	-23.3	-1	1		94.3
9	-33.1	-19.5	0.5	-1	1		31.6	19.6	-57.7	1	1		90.4
10	-5.2	31.1	-12.6	1	1		5.7	-30.8	-55.6	-1	1		70.0
11	-32.6	15.0	36.7	1	1		26.8	-10.4	121.0	-1	1		77.1
12	-15.0	-33.7	-156.0	-1	1		10.4	33.4	-23.2	1	1		93.7
13	-18.2	-53.3	95.2	-1	1		-7.7	38.4	90.8	1	1		91.6
14	10.8	-23.9	164.6	-1	1		2.8	23.6	-3.6	1	1		101.4
15	12.7	-48.4	68.4	-1	1		7.9	42.2	27.4	1	1		93.6
16	22.3	-20.6	8.0	1	1		-18.1	18.4	-89.4	-1	1		94.0
17	-22.8	21.6	-40.9	1	1		20.4	-20.7	24.3	-1	1		87.8
18	-45.8	6.5	211.3	-1	1		41.1	-8.2	174.5	1	1		88.1
19	-26.8	15.7	-26.4	1	2		16.8	-0.7	18.8	-1	2		74.3
20	17.6	-38.9	23.4	-1	1		-6.1	27.8	92.0	1	1		86.4
21	15.7	-39.0	57.2	1	1		-17.7	37.3	16.6	-1	1		88.8
22	-46.7	-17.0	81.9	1	1		37.8	15.3	39.5	-1	1		92.0
23	25.4	-33.0	102.3	1	1		-39.2	-7.4	24.0	-1	1		82.9
24	12.9	-58.7	-62.4	1	1		16.9	25.7	-96.1	-1	1		97.0
25	-2.8	43.7	35.7	-1	1		0.1	-39.7	88.8	1	1		90.1
26	17.4	3.2	-42.0	-1	2		-13.0	0.6	35.8	1	3		73.3
27	47.5	-14.7	-26.0	-1	1		-41.2	12.6	-19.3	1	1		92.7
28	-3.8	-49.1	40.9	-1	1		16.2	33.6	79.4	1	1		90.3
29	-34.7	-1.9	-12.0	-1	1		24.8	5.4	-149.0	1	1		96.3
30	-44.3	0.7	-90.2	1	1		5.1	5.2	9.8	1	1		71.2
31	-52.4	64.7	-73.5	-1	1		-6.7	-25.1	-58.1	1	1		89.9
32	-52.6	9.0	121.3	1	1		34.9	-14.4	118.2	-1	1		90.2
33	-37.2	2.6	39.8	1	1		20.4	4.7	-31.6	-1	1		90.3
34	-43.7	-32.5	132.4	1	1		38.6	-5.7	46.6	-1	1		89.9
35	37.2	32.8	-109.2	1	1		-23.8	-30.3	-164.1	-1	1		91.4
36	-10.3	44.0	2.4	-1	1		7.0	-41.1	29.1	1	1		90.7
37	-18.8	36.1	-75.4	1	1		37.1	-16.2	-11.3	-1	1		89.9
38	-27.2	-37.6	5.2	-1	1		25.2	34.7	22.6	1	1		90.9
39	26.5	7.2	35.1	-1	1		23.3	-5.5	-58.5	1	1		92.7
40	-15.6	58.1	133.2	1	1		28.0	-11.1	106.0	-1	1		78.3

Theory Prediction of Mass Distribution (By Computer Simulation)

	70-75 GeV	75-80 GeV	80-85 GeV	85-90 GeV	90-95 GeV	95-100 GeV	100-105 GeV
Events	2	2	2	7	18	2	2