Hypothesis plots summary

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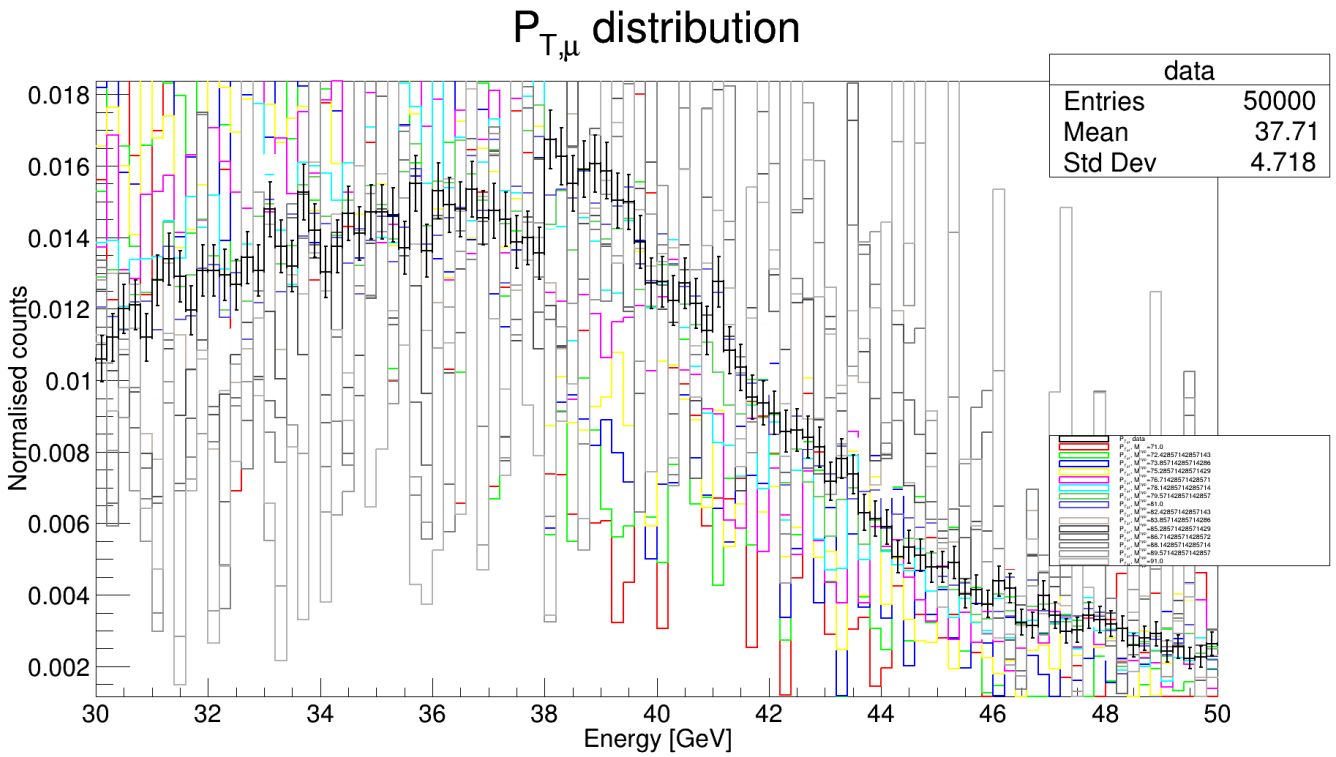
Plots and corresponding metadata

Number of data points used: 99999,
mean expected W mass: 80.36010913 $[GeV/c^2]$,
mean hypothesis masses $[GeV/c^2]$: [¡generator object ¡genexpr¿ at 0x7f51161f6510¿],
mass width: 2.07041274 $[GeV/c^2]$,
chi_square value of hypothesis fit: 112.07408778430181
Absolute path to figure: /home/physics/phuxdp/Desktop/PX402 Physics Project/WBosonProject/noQED/plots
Next lines are the data of the shown histograms (if needed):
All quantities: 99999, 80.36010913, [71. 72.42857143 73.85714286 75.28571429 76.71428571
78.14285714 79.57142857 81. 82.42857143 83.85714286 85.28571429 86.71428571 88.14285714
89.57142857 91.], 2.07041274, 112.07408778430181
X_energ_vls = [30.1, 30.299999999999997, 30.5, 30.700000000000003, 30.9, 31.1, 31.299999999999997,
31.5, 31.700000000000003, 31.9, 32.1, 32.3, 32.5, 32.7, 32.9, 33.1, 33.3, 33.5, 33.7, 33.9, 34.1,
34.3, 34.5, 34.7, 34.9, 35.1, 35.3, 35.5, 35.7, 35.9, 36.1, 36.3, 36.5, 36.7, 36.9, 37.1, 37.3, 37.5,
37.7, 37.9, 38.1, 38.3, 38.5, 38.7, 38.9, 39.1, 39.3, 39.5, 39.7, 39.9, 40.1, 40.3, 40.5, 40.7, 40.9,
41.1, 41.3, 41.5, 41.7, 41.9, 42.1, 42.3, 42.5, 42.7, 42.9, 43.1, 43.3, 43.5, 43.7, 43.9, 44.1, 44.3,
44.5, 44.7, 44.9, 45.1, 45.3, 45.5, 45.7, 45.9, 46.1, 46.300000000000004, 46.5, 46.7, 46.9, 47.1,
47.300000000000004, 47.5, 47.7, 47.9, 48.1, 48.300000000000004, 48.5, 48.7, 48.9, 49.1, 49.30000000000
49.5, 49.7, 49.9]
Y_data_bin_cnts = [266.0, 281.0, 301.0, 304.0, 281.0, 321.0, 336.0, 324.0, 300.0, 328.0, 328.0,
325.0, 318.0, 337.0, 328.0, 371.0, 345.0, 331.0, 383.0, 356.0, 327.0, 345.0, 368.0, 354.0, 369.0,
369.0, 367.0, 344.0, 389.0, 342.0, 384.0, 374.0, 371.0, 385.0, 365.0, 370.0, 364.0, 348.0, 351.0,
340.0, 420.0, 408.0, 389.0, 399.0, 403.0, 398.0, 377.0, 376.0, 348.0, 319.0, 320.0, 307.0, 319.0,
305.0, 286.0, 320.0, 272.0, 260.0, 239.0, 235.0, 228.0, 215.0, 216.0, 211.0, 204.0, 180.0, 196.0,
185.0, 158.0, 154.0, 148.0, 127.0, 134.0, 128.0, 120.0, 120.0, 123.0, 101.0, 104.0, 94.0, 110.0,
105.0, 81.0, 79.0, 100.0, 86.0, 75.0, 76.0, 86.0, 83.0, 80.0, 77.0, 65.0, 70.0, 73.0, 61.0, 64.0, 56.0,
57.0, 66.0]
Y_model_bin_cnts = [248.8841552734375, 201.95858764648438, 216.60215759277344, 280.37548828125,
141.84603881835938, 104.4836196899414, 249.8253631591797, 32.915679931640625, 152.646102905
239.68687438964844, 58.53604507446289, 106.0986099243164, 170.5635528564453, 409.252075195312
259.4189758300781, 144.86660766601562, 47.69832229614258, 179.67138671875, 73.05419921875,
299.77728271484375, 83.81353759765625, 252.1007080078125, 196.16159057617188, 353.584289550
142.7912139892578, 178.62359619140625, 453.01873779296875, 377.9122314453125, 94.98891448974
82.77993774414062, 115.96817016601562, 345.4283752441406, 138.16693115234375, 557.543151855
103.93212127685547, 258.90179443359375, 162.27090454101562, 409.20709228515625, 205.79858398
174.62045288085938, 75.85962677001953, 195.6945343017578, 218.5081329345703, 135.526931762695



372.4667663574219, 437.4012756347656, 293.29974365234375, 479.5151062011719, 302.24386596679
164.47879028320312, 294.1531982421875, 173.03416442871094, 351.8013000488281, 210.69944763183
304.1256103515625, 508.3580017089844, 277.75634765625, 167.61851501464844, 340.46649169921875
514.11767578125, 289.6979675292969, 173.88958740234375, 439.3193664550781, 357.152099609375,
272.7370910644531, 278.3534851074219, 174.61090087890625, 223.6378631591797, 246.56036376953
265.5738525390625, 318.517333984375, 428.11212158203125, 305.6524658203125, 412.5213928222656
201.86993408203125, 80.65467071533203, 415.6733703613281, 172.019287109375, 130.96347045898
63.9389533996582, 338.7933044433594, 64.087646484375, 87.38468933105469, 122.67027282714844,
102.7680435180664, 213.93496704101562, 327.872314453125, 22.32999038696289, 186.04216003417
213.1693572998047, 132.81527709960938, 111.32666778564453, 41.20119857788086, 131.58323669433
275.5798645019531, 60.03801727294922, 139.77186584472656, 87.23624420166016, 23.93336296081
37.355350494384766]

Found optimal massses (χ^2 roots): [79.70970257] $[GeV/c^2]$
Uncertainty [GeV/c^2] : 0.0

Notes:
1) Using mu_born_PT as pseudodata and Mu_Pt as model/hypothesis
2) Using full run mode

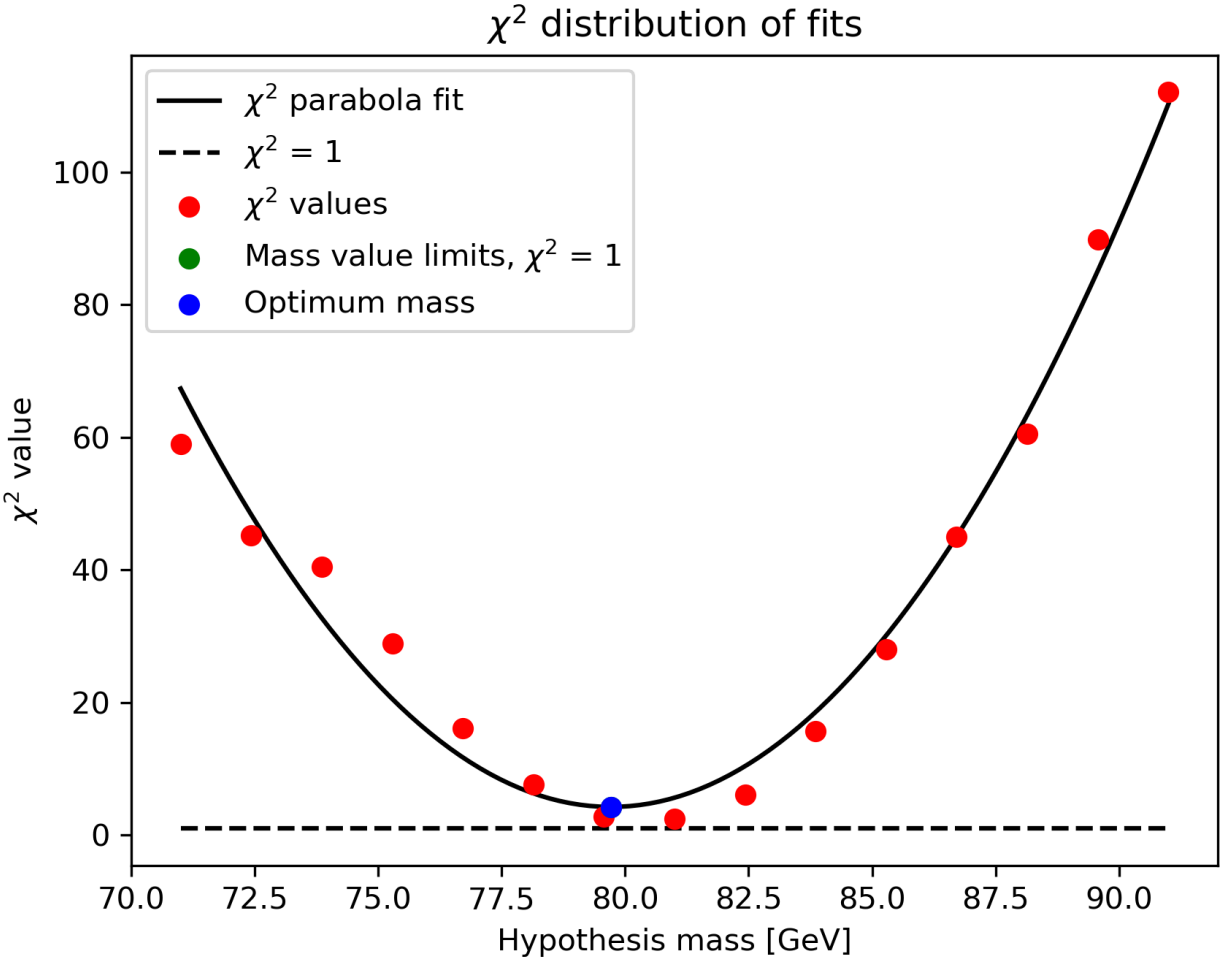


Figure 2: χ^2 of hypothesis masses.

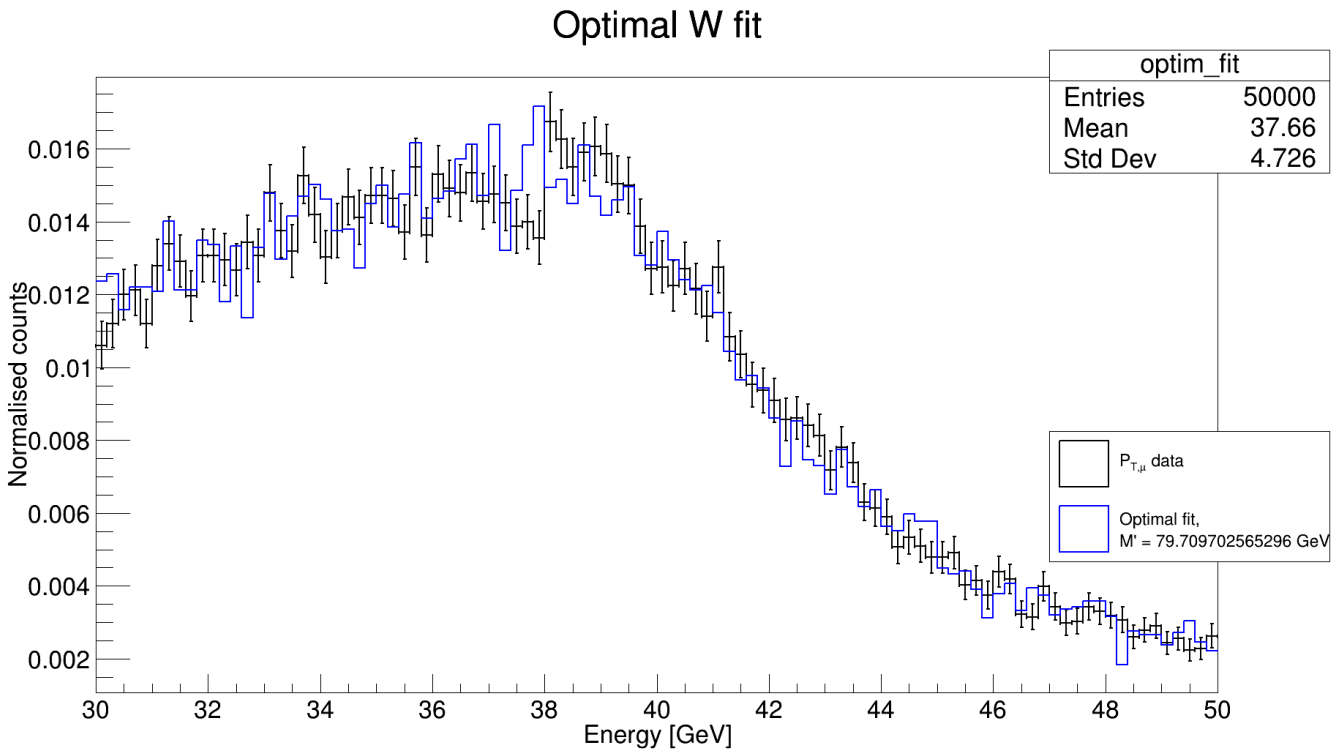


Figure 3: Data and optimum fit with $\chi^2 = 1.8929436100143977$. Used the hypothesis mass of 79.709702565296 $[GeV/c^2]$.