Hypothesis plots summary

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Plots

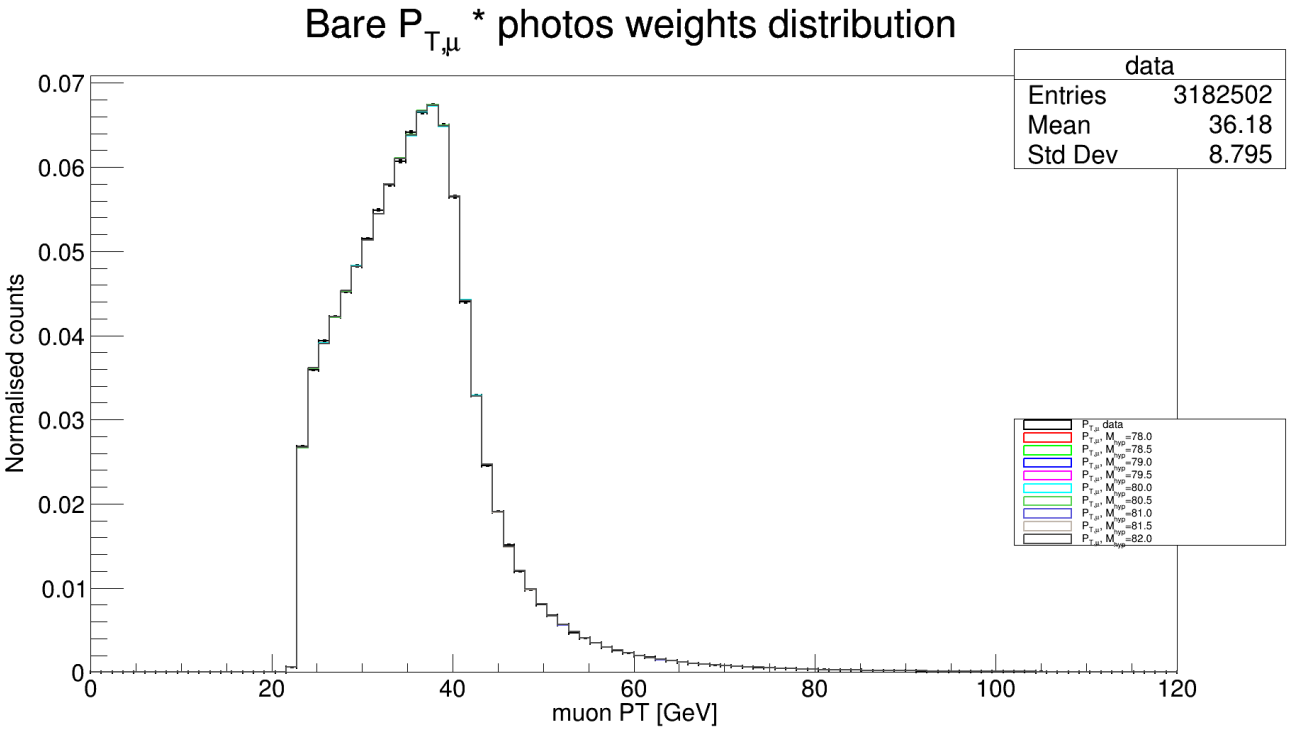

Figure 1: Hypothesis masses [78. 78.5 79. 79.5 80. 80.5 81. 81.5 82.].

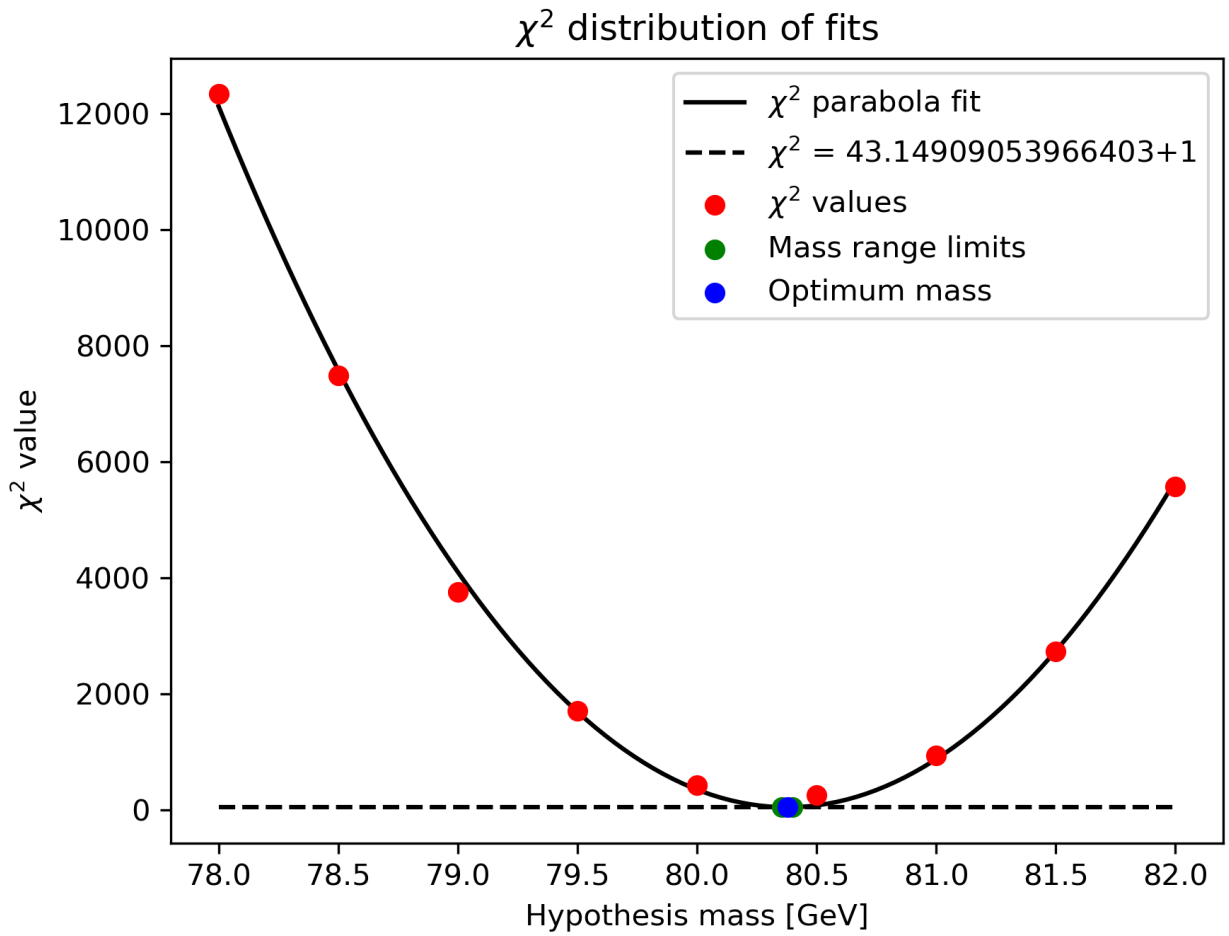

Figure 2: χ^2 of hypothesis masses.

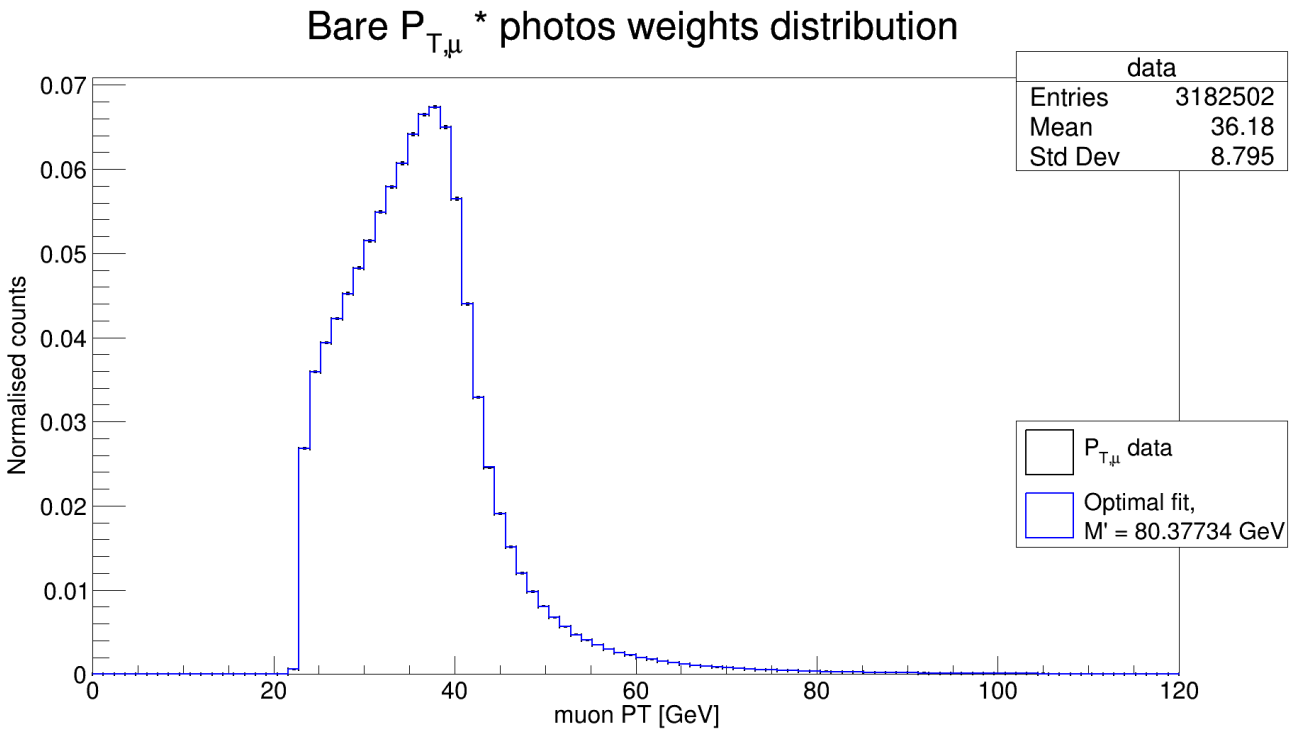

Figure 3: Data and optimum fit with $\chi^2/DoF(n\_hist\_bins - parms\_fit) = 0.24993855059053194/98$. Used the hypothesis mass of 80.37734±0.02162 $[GeV/c^2]$.

Summary and Metadata

Found optimal massses (χ^2 roots): [80.37734] $[GeV/c^2]$ Uncertainty $[GeV/c^2]$: 0.02162
mean expected W mass: 80.379 $[GeV/c^2]$,
mean hypothesis masses: [78. 78.5 79. 79.5 80. 80.5 81. 81.5 82.] $[GeV/c^2]$,
mass width: 0.02 $[GeV/c^2]$,
chi_square value of hypothesis fit: 5576.268417175113
Absolute path to figure: /home/physics/phuxdp/Desktop/PX402 Physics Project/WBosonProject/T2W7/3_b
Next lines are the data of the shown histograms (if needed):
All quantities: 80.379, [78. 78.5 79. 79.5 80. 80.5 81. 81.5 82.], 20, 5576.268417175113
X_energ_vls = [0.6, 1.7999999999999998, 3.0, 4.199999999999999, 5.4, 6.6, 7.8, 9.0, 10.2,
11.399999999999999, 12.6, 13.799999999999999, 15.0, 16.2, 17.4, 18.6, 19.799999999999997,
21.0, 22.2, 23.4, 24.6, 25.799999999999997, 27.0, 28.199999999999996, 29.4, 30.6, 31.7999999999999
33.0, 34.2, 35.4, 36.599999999999994, 37.8, 39.0, 40.2, 41.4, 42.599999999999994, 43.8,
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79.8, 81.0, 82.19999999999999, 83.4, 84.6, 85.8, 87.0, 88.19999999999999, 89.4, 90.6, 91.8,
93.0, 94.19999999999999, 95.4, 96.6, 97.8, 99.0, 100.19999999999999, 101.4, 102.6, 103.8,
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115.79999999999998, 117.0, 118.19999999999999, 119.4]
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169.3647003173828, 146.4401397705078, 132.41529846191406, 161.80874633789062, 113.15660858
123.14380645751953, 126.65068817138672, 111.99562072753906, 93.74854278564453, 83.41451263
Y_model_bin_cnts = [0.8812406063079834, 1.762481927871704, 2.6437177658081055, 0.0, 5.28744554
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14.121114730834961, 28.237953186035156, 34.40238952636719, 35.304893493652344, 38.83411407
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