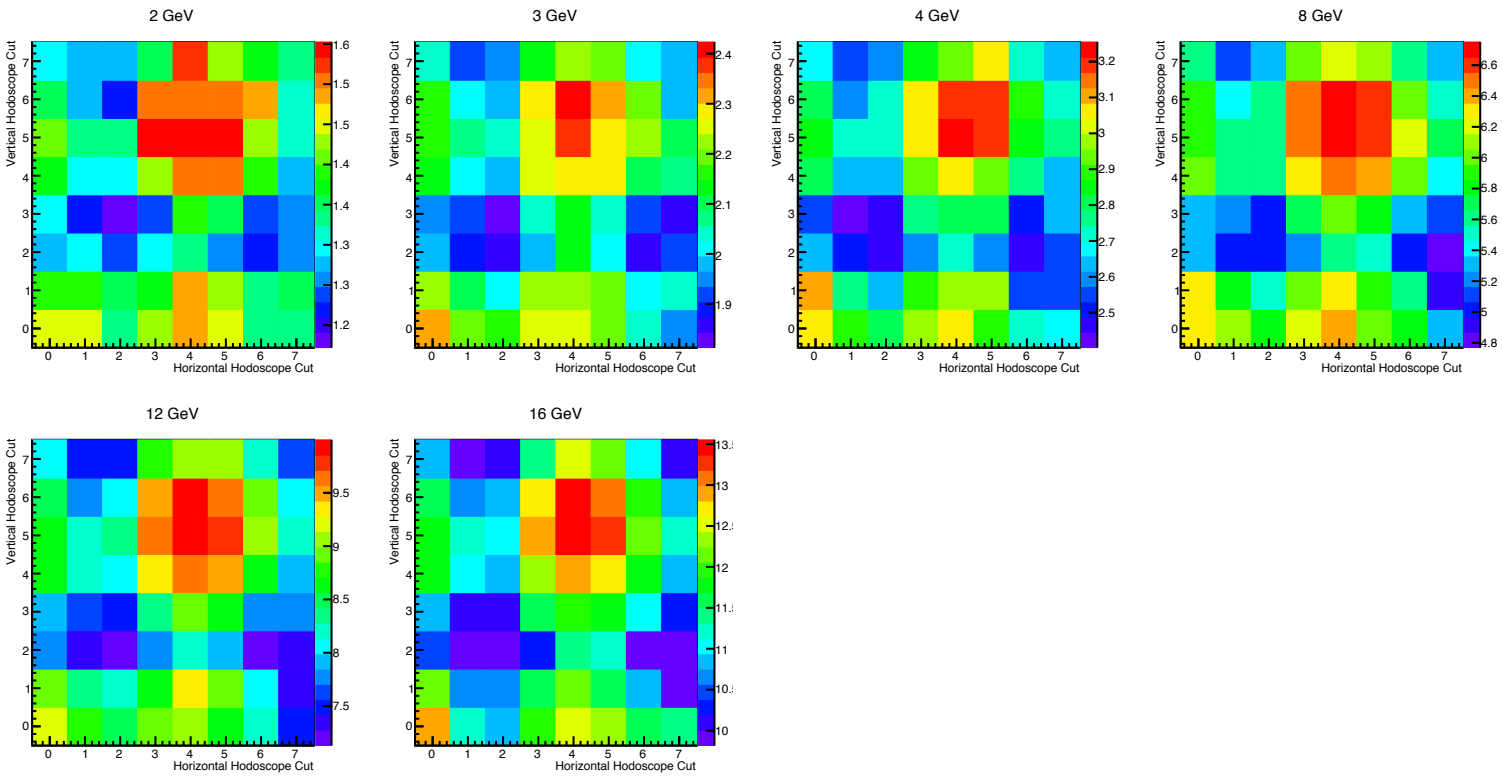
EMCal Testbeam Analysis 8/30

180° Rotated Runs

Energy	Runs
2 GeV	2575, 2576, 2577
3 GeV	2583, 2585
4 GeV	2578, 2579, 2580
8 GeV	2581, 2582
12 GeV	2586, 2587, 2588
16 GeV	2574

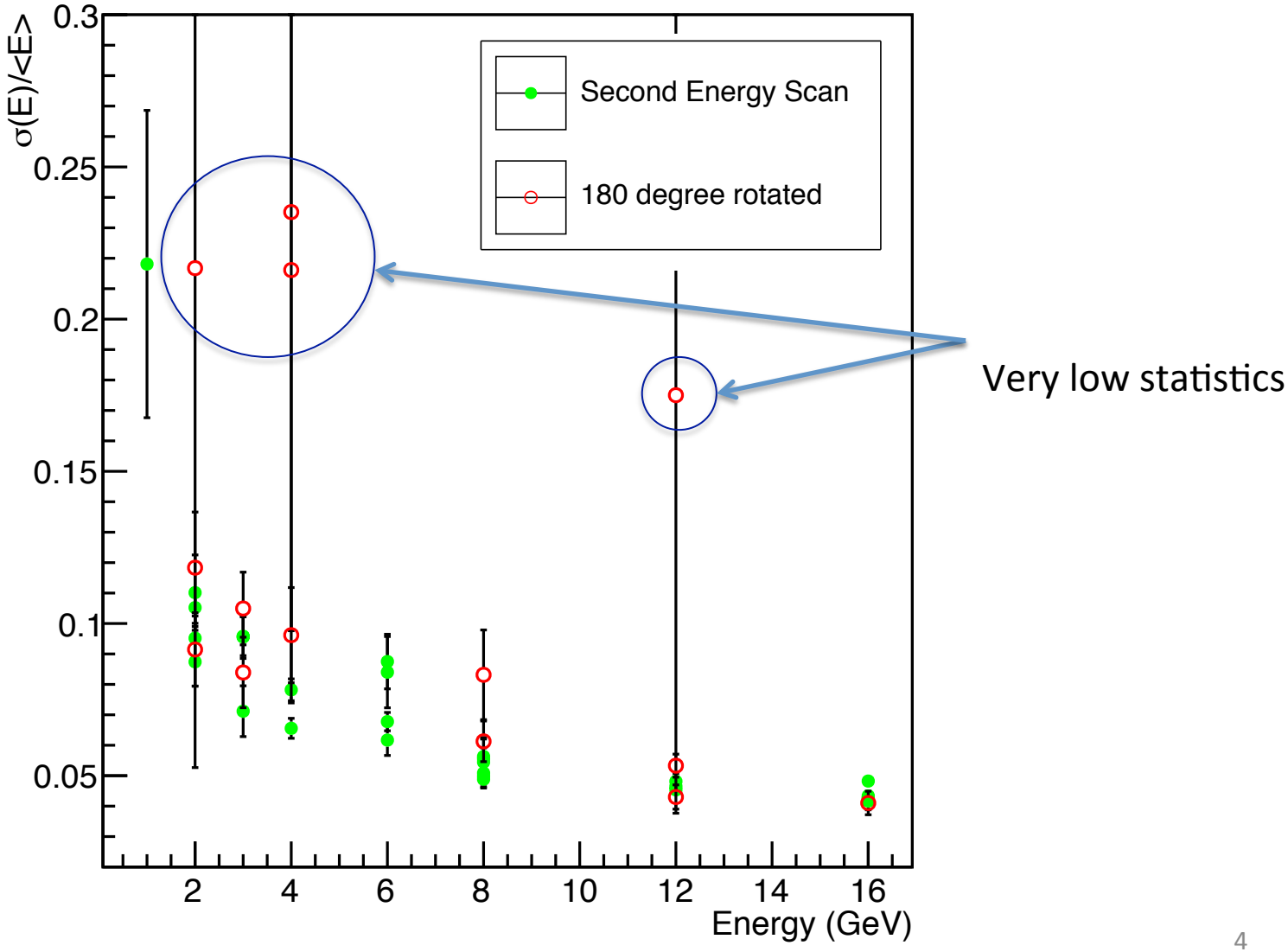
180° Rotated Mean Energy by Hodoscope Cuts



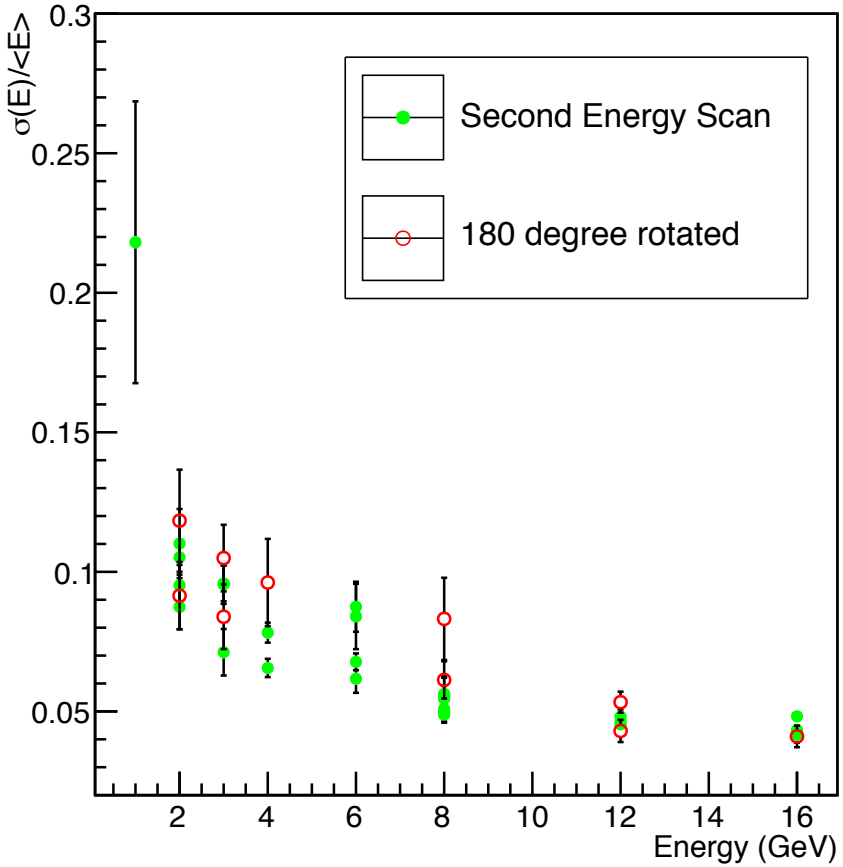
Cuts:

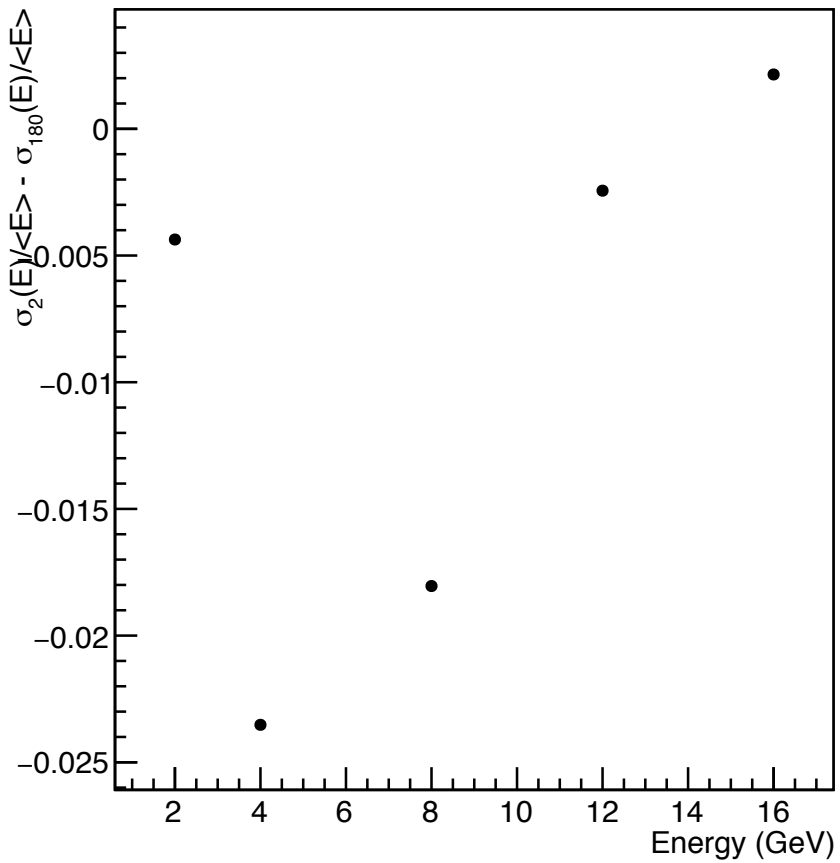
- Cherenkov: abs(C2_inner_new_t + C2_outer_new_t) > 100
- Veto: Veto1_t < 15 || Veto2_t < 15 || Veto3_t < 15 || Veto4_t < 15
- Horizontal hodoscope: abs(Horz_HODO_**R4**_t) > 30 ||abs(Horz_HODO_**R5**_t) > 30
- Vertical hodoscope: abs(Vert_HODO_**R5**_t) > 30||abs(Vert_HODO_**R6**_t) > 30

180° Rotated Resolution

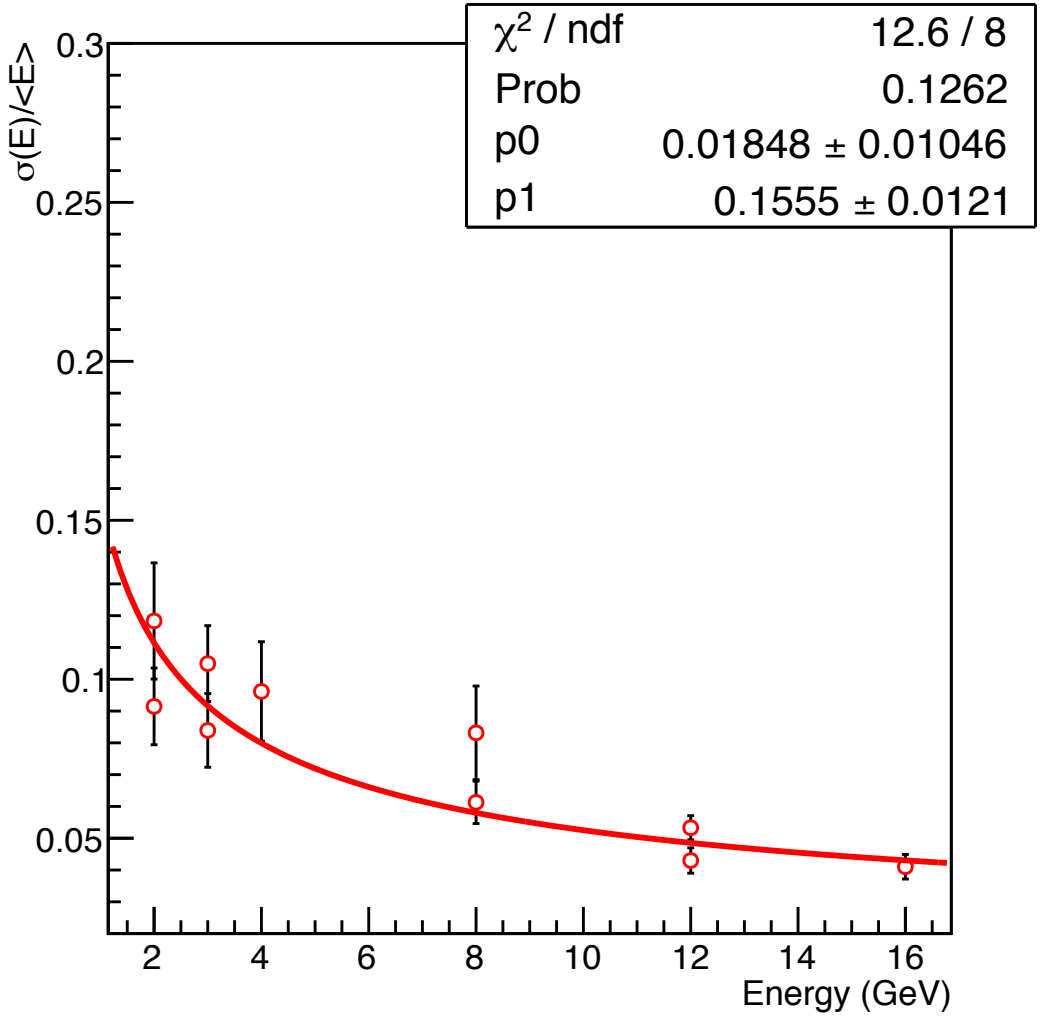


180° Rotated Resolution without Low Statistic Runs





180° Rotated Resolution without Low Statistic Runs

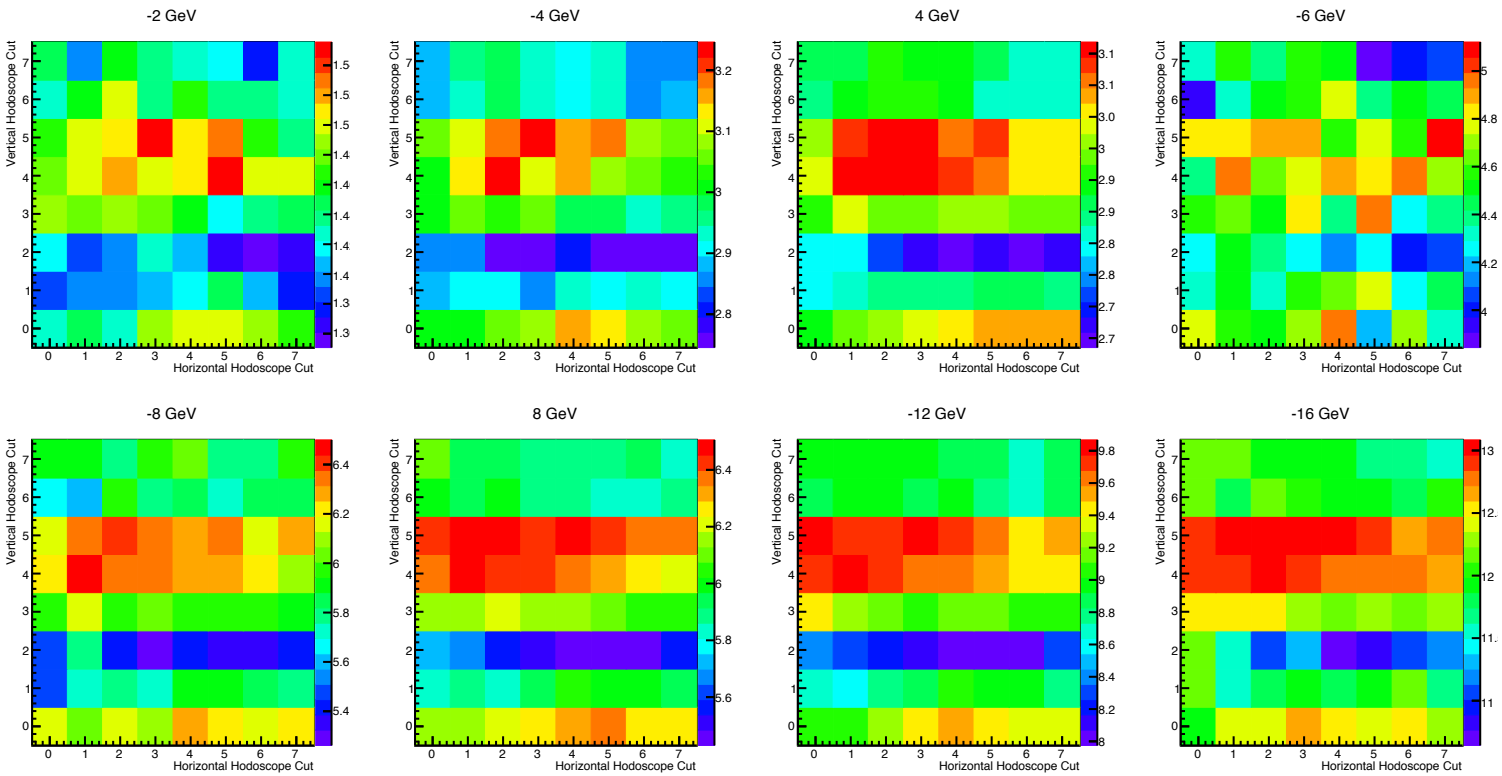


High Eta Runs

Energy	Run
-2 GeV	2846
-4 GeV	2847
-6 GeV	2850
-8 GeV	2853
-12 GeV	2860
-16 GeV	2861
4 GeV	2849
8 GeV	2858

Production: Production_0715_EMCalSet2_HCalPR12

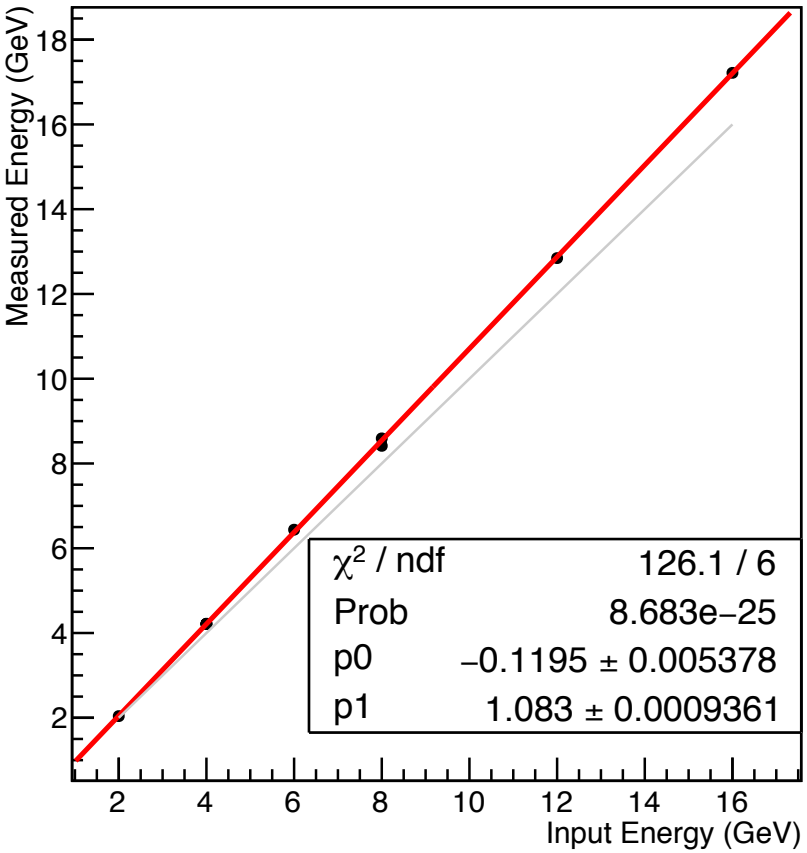
High Eta Mean Energy by Hodoscope Cuts

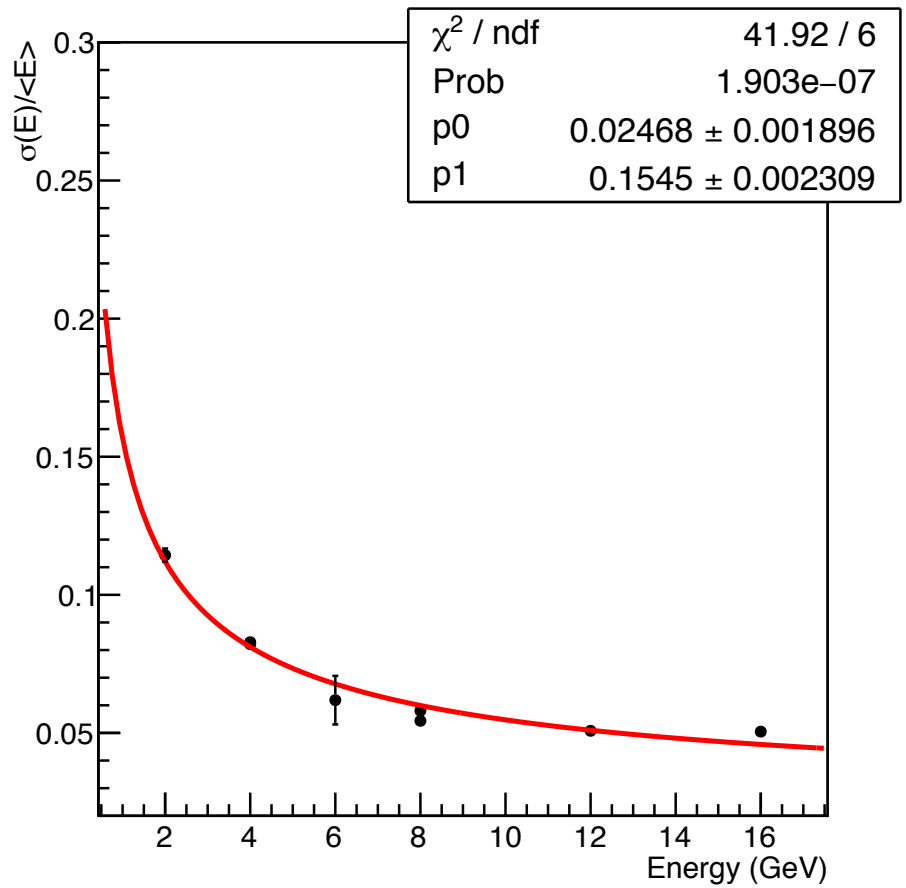


Cuts:

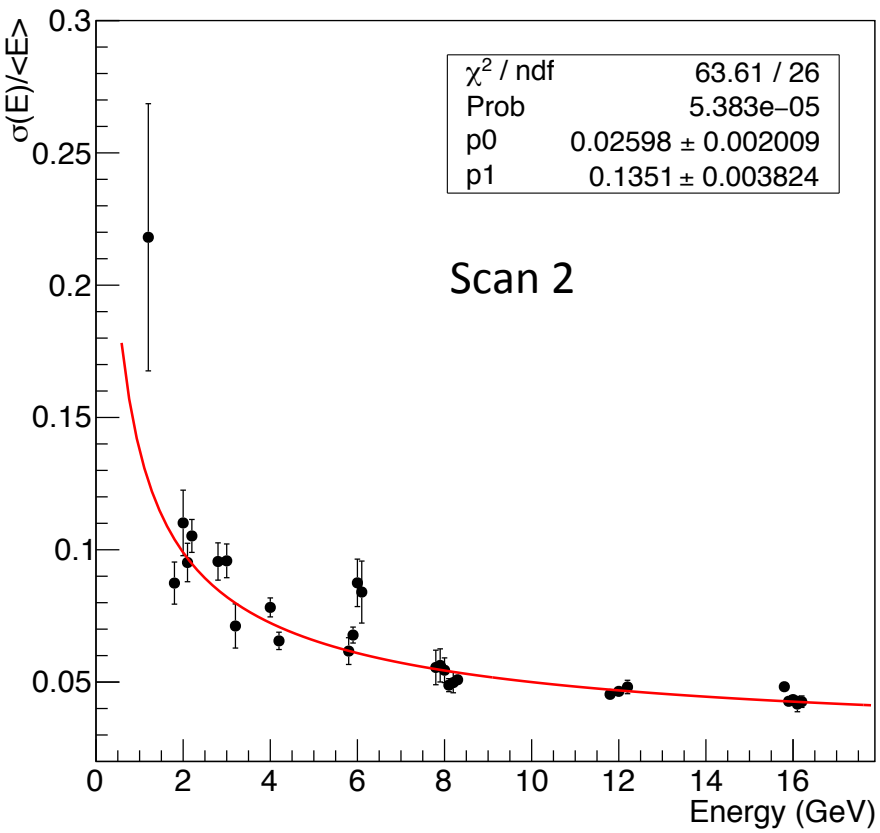
- Cherenkov: abs(C2_inner_new_t + C2_outer_new_t) > 100
- Veto: Veto1_t < 15 || Veto2_t < 15 || Veto3_t < 15 || Veto4_t < 15
- Horizontal hodoscope: none
- Vertical hodoscope: abs(Vert_HODO_**R4**_t) > 30||abs(Vert_HODO_**R5**_t) > 30

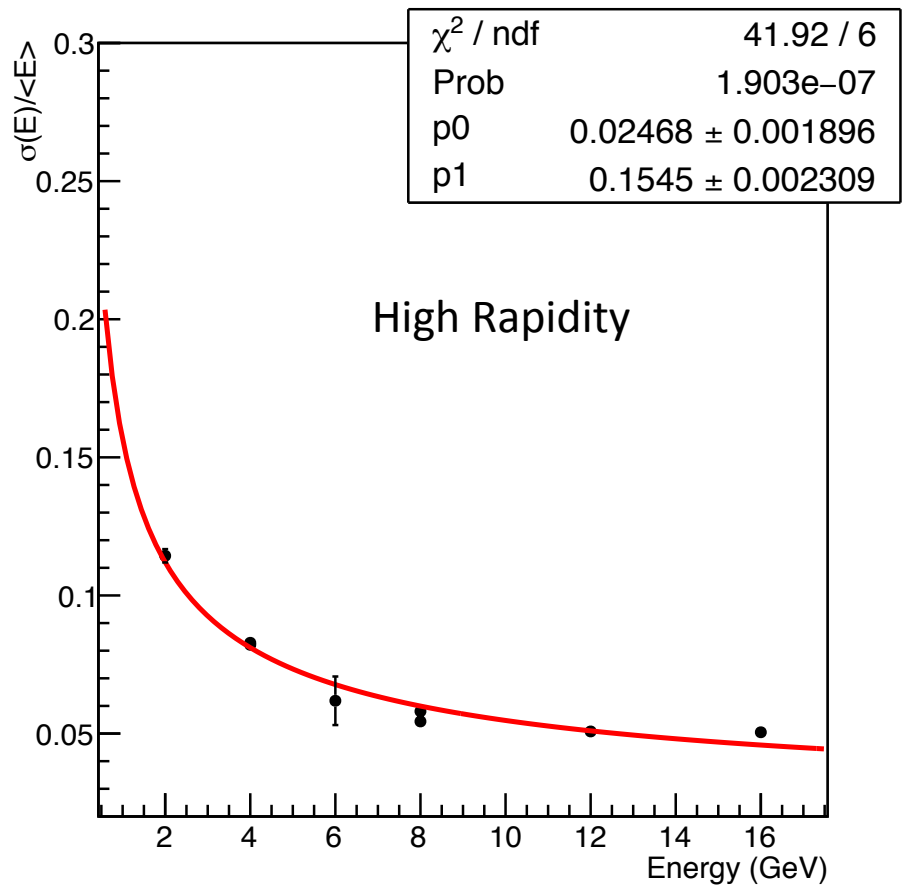
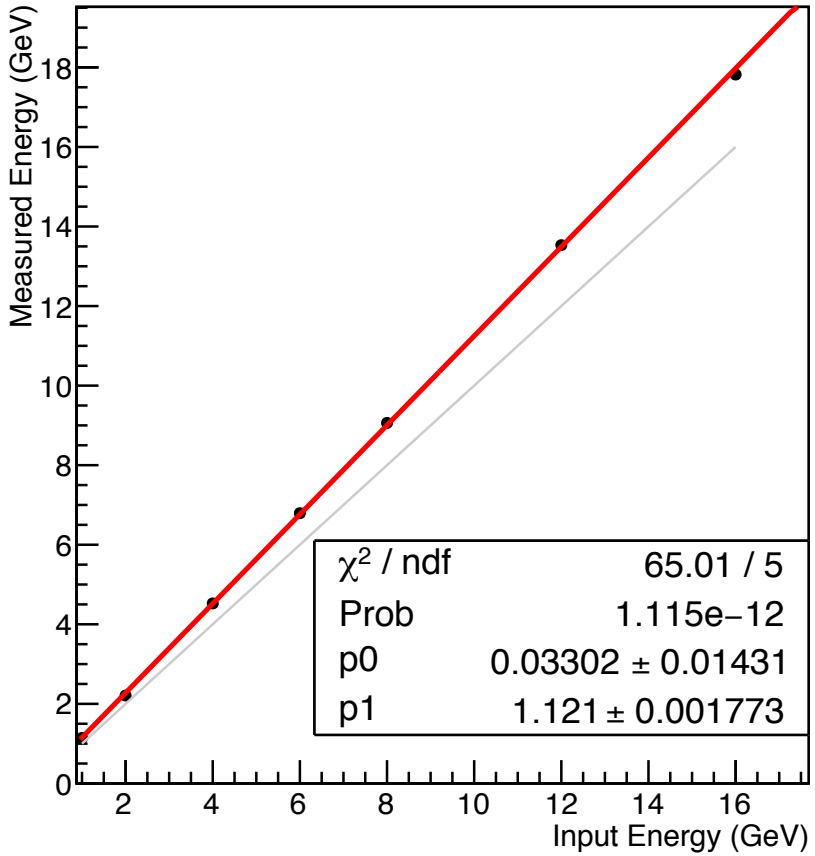
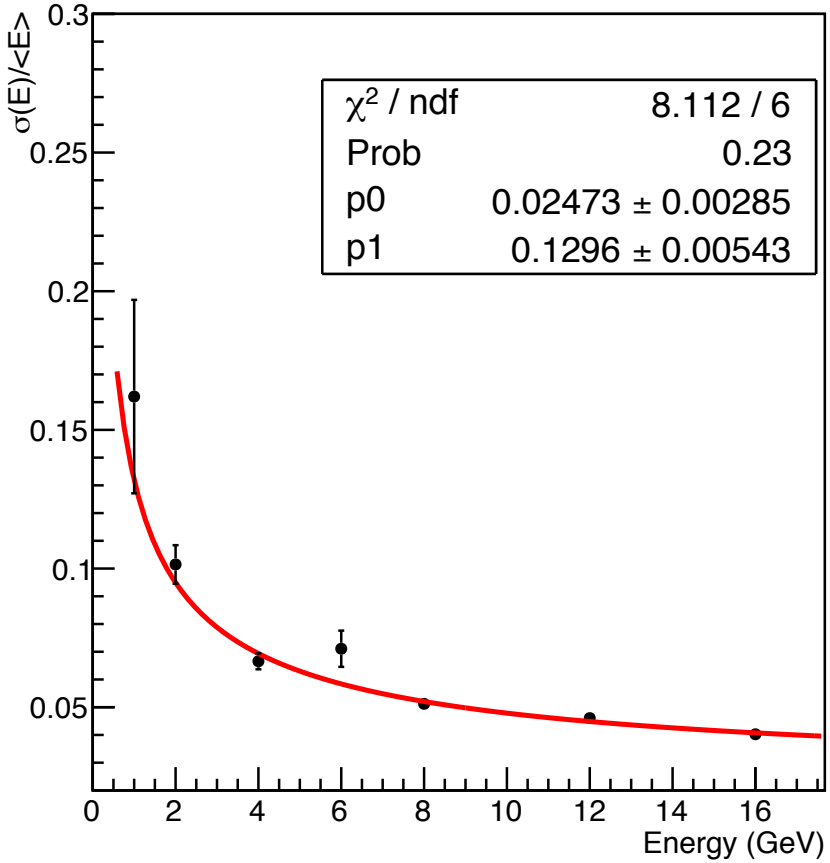
High Eta Linearity and Resolution





Resolution


χ^2 / ndf 63.61 / 26
Prob 5.383e−05
p0 0.02598 ± 0.002009
p1 0.1351 ± 0.003824
Scan 2
σ(E)/<E>
Energy (GeV)


χ^2 / ndf 41.92 / 6
Prob 1.903e−07
p0 0.02468 ± 0.001896
p1 0.1545 ± 0.002309
High Rapidity
σ(E)/<E>
Energy (GeV)

New Calibration and Temperature Correction