

THP Analysis

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Sickles

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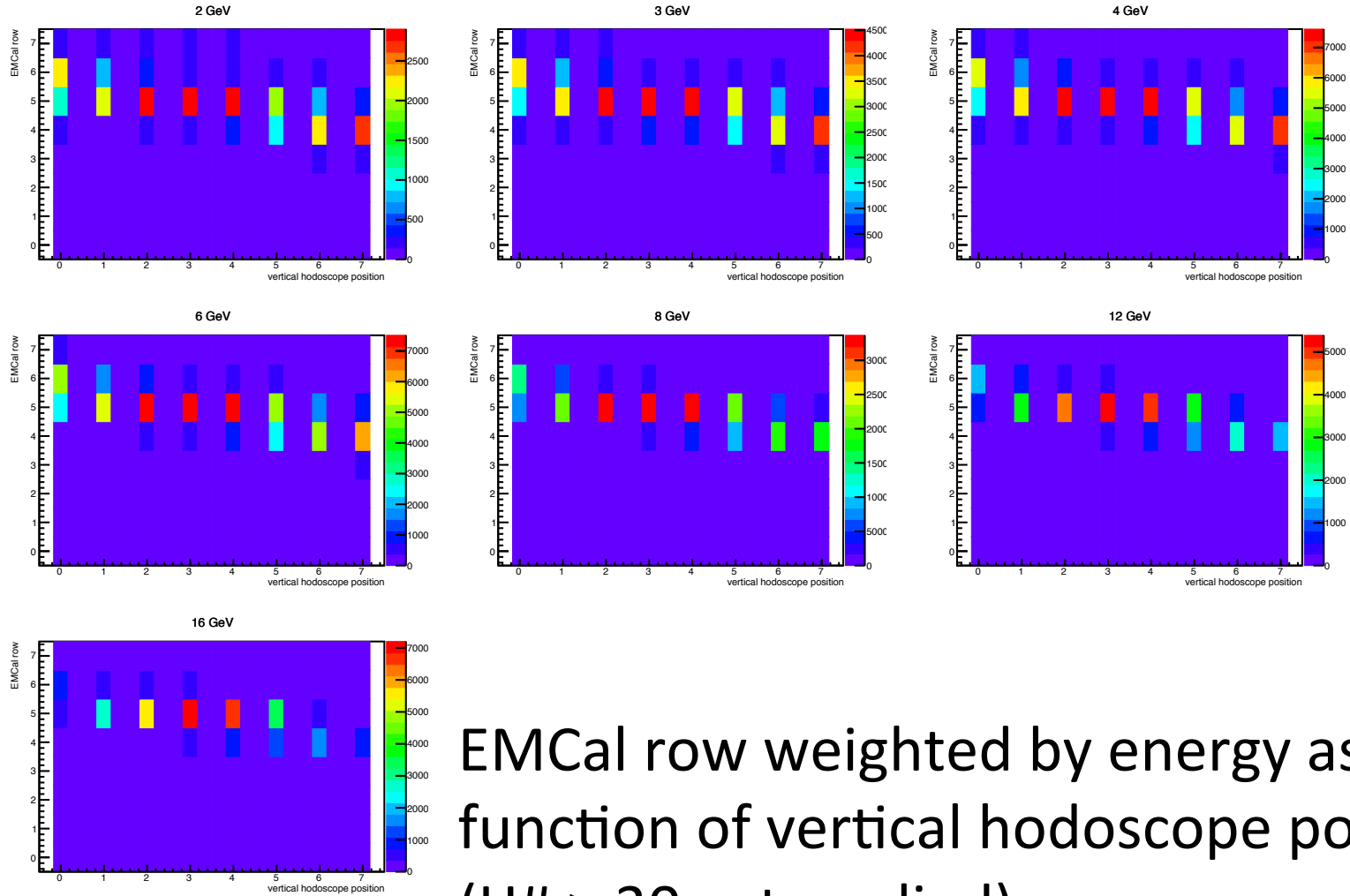
THP Tower 42

Energy	Run Number
2 GeV	2269
3 GeV	2264
4 GeV	2257
6 GeV	2249
8 GeV	2288
12 GeV	2278
16 GeV	2284

Dataset location: /gpfs/mnt/gpfs02/sphenix/user/jinhuang/Prototype_2016/
Production_0417_CEMC_MIP_set2_v3/

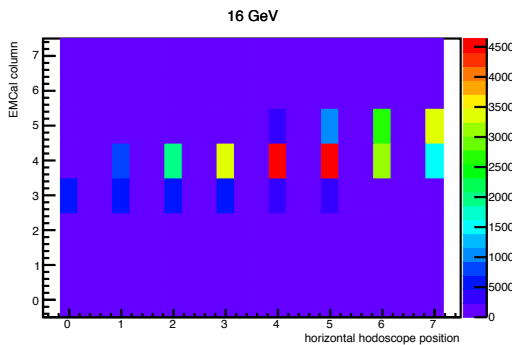
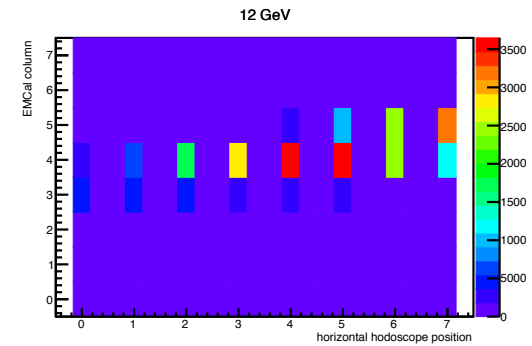
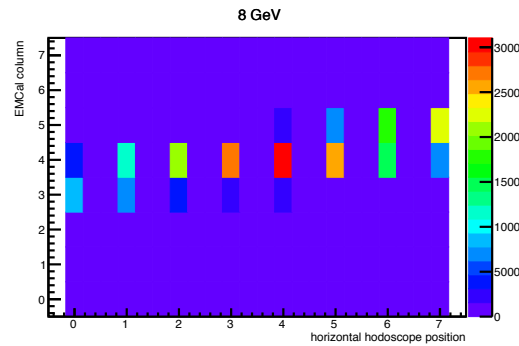
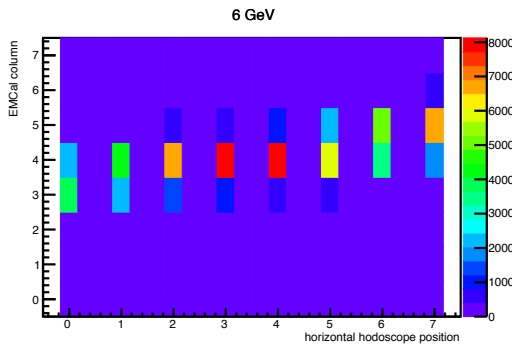
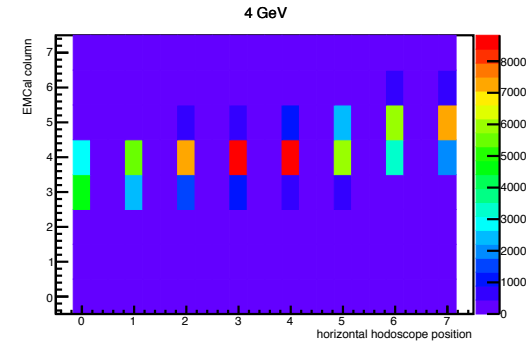
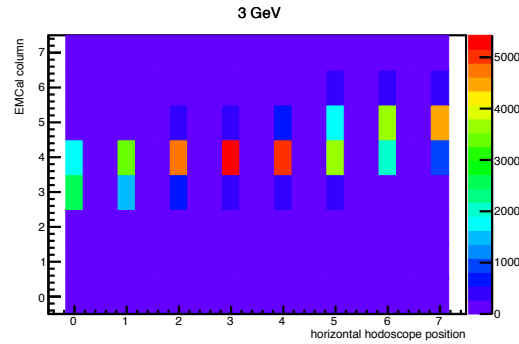
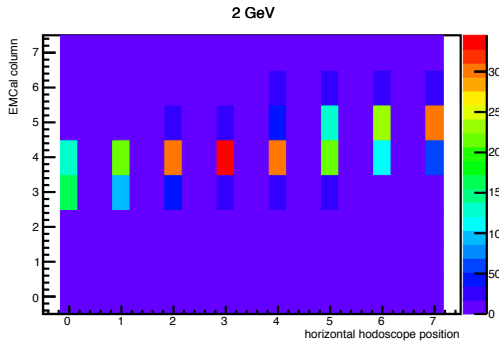
Class location: [https://github.com/sPHENIX-Collaboration/analysis/tree/master/
Prototype2/EMCal/EMCalCalib_TestBeam](https://github.com/sPHENIX-Collaboration/analysis/tree/master/Prototype2/EMCal/EMCalCalib_TestBeam)

Hodoscope (Vertical)



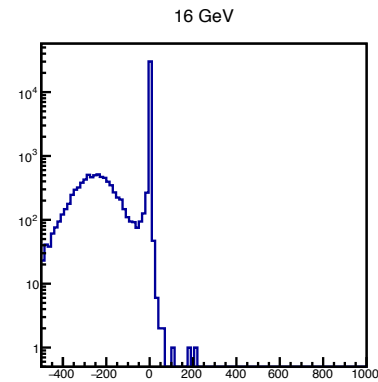
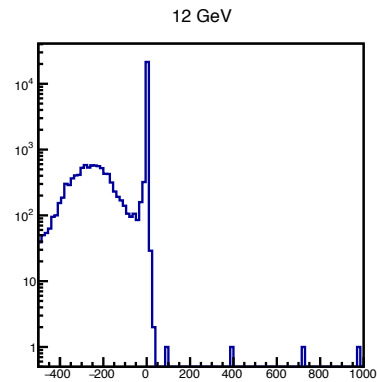
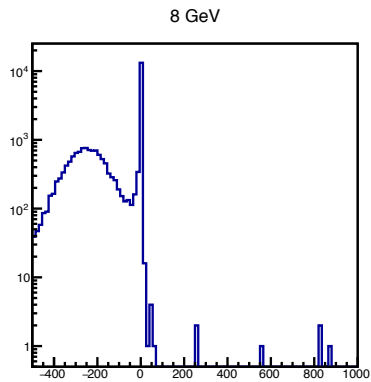
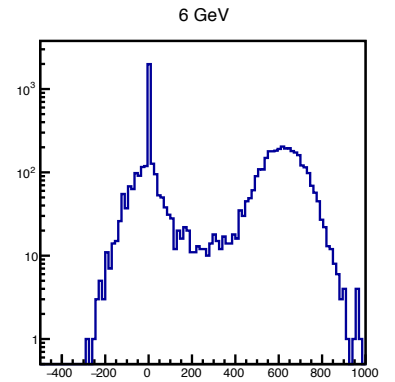
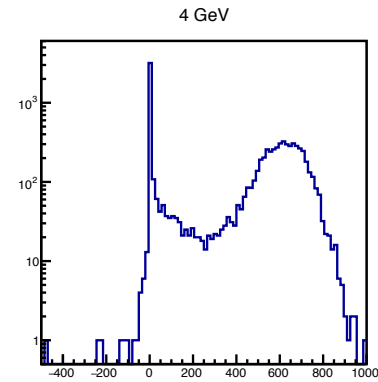
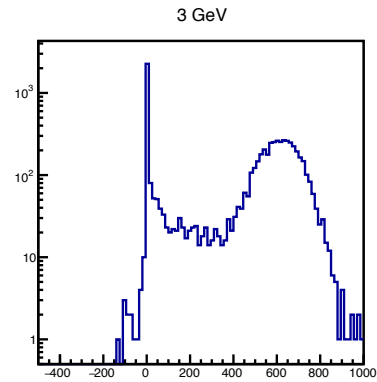
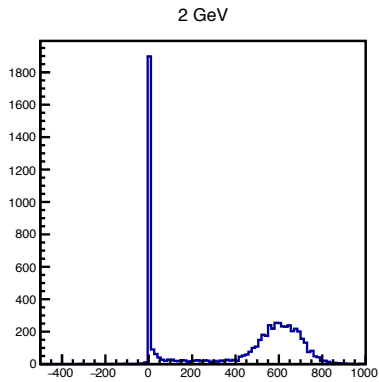
EMCal row weighted by energy as a function of vertical hodoscope position (H# > 30 cut applied)

Hodoscope (Horizontal)



EMCal column weighted by energy as a function of horizontal hodoscope position (H# > 30 cut applied)

Cherenkov

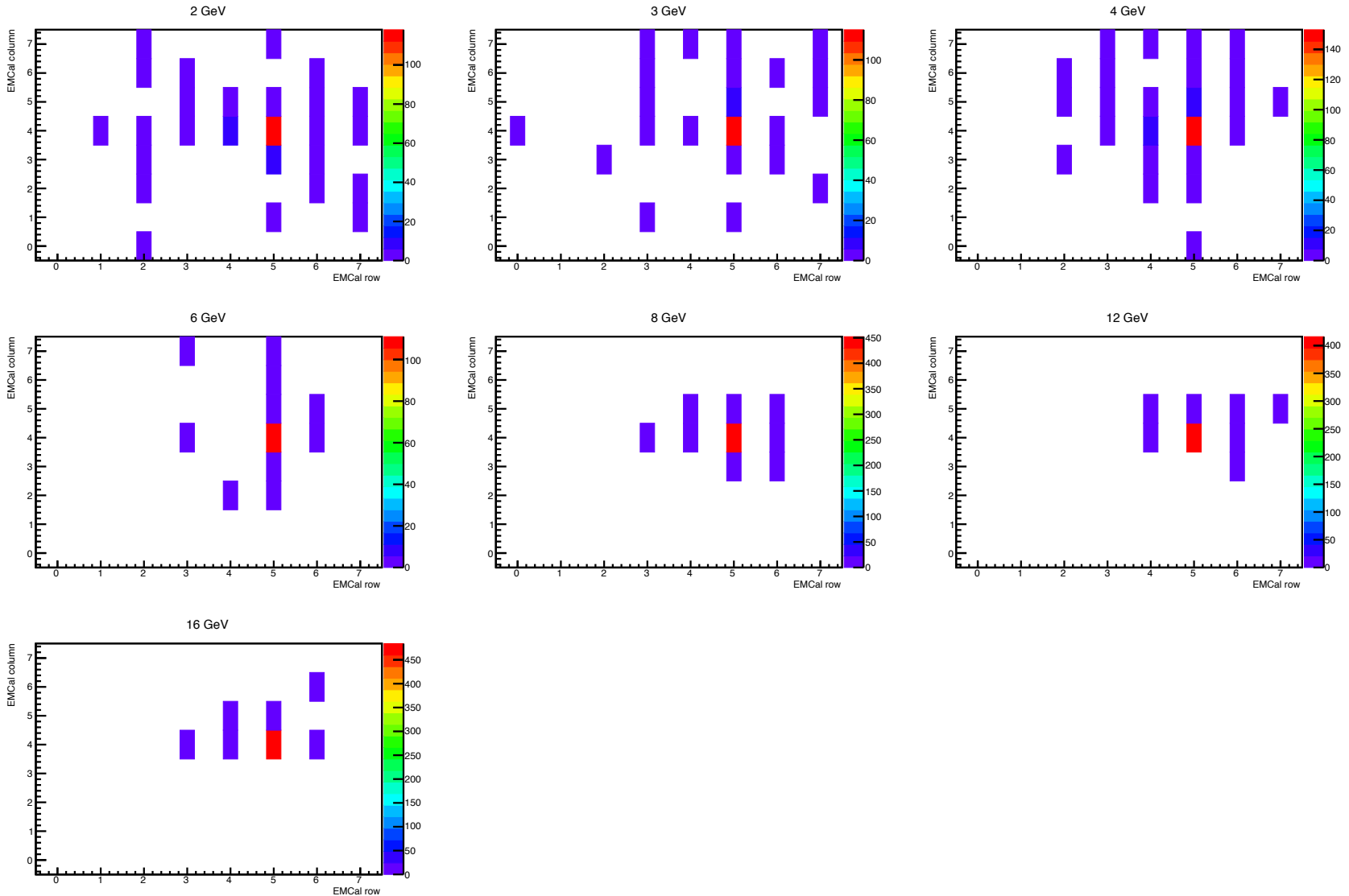


C2 inner + C2 outer

THP Cuts

- veto cuts from wiki: require all veto counters to be less than 15
- require $\text{abs}(\text{C2 inner} + \text{C2 outer}) > 100$
- hodoscope cuts:
 - horizontal: 3 || 4
 - vertical: 4

Tower with maximum energy after cuts

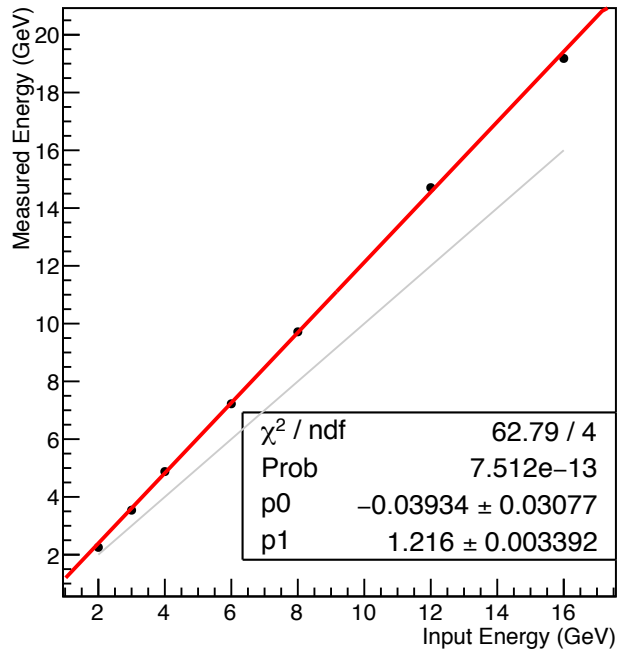


UIUC Tower 21

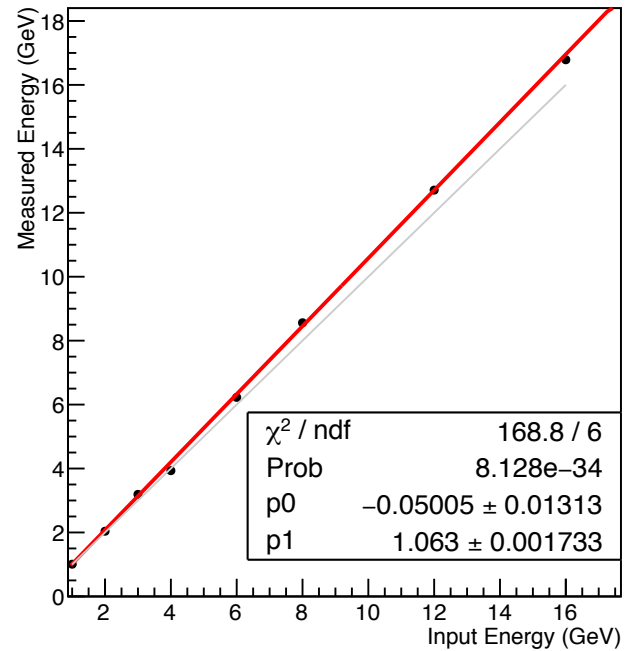
Energy	Scan Number
1 GeV	2298
2 GeV	2268
3 GeV	2260
4 GeV	2256
6 GeV	2247
8 GeV	2295
12 GeV	2276
16 GeV	2280

- hodoscope cuts:
 - horizontal: 5
 - vertical: 2 | | 3
- same veto and cherenkov cuts as THP

Linearity

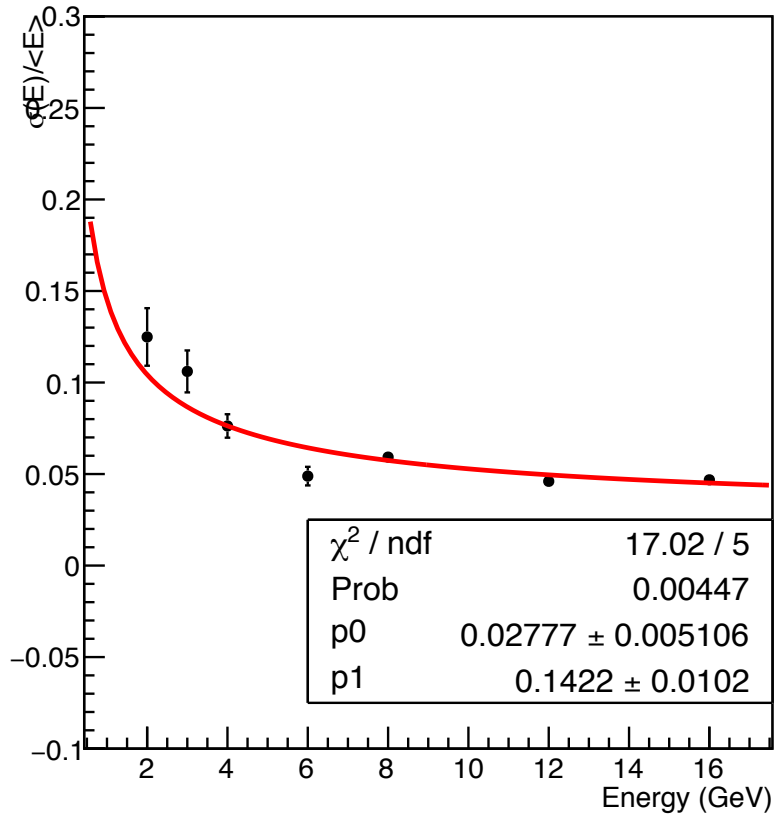


THP

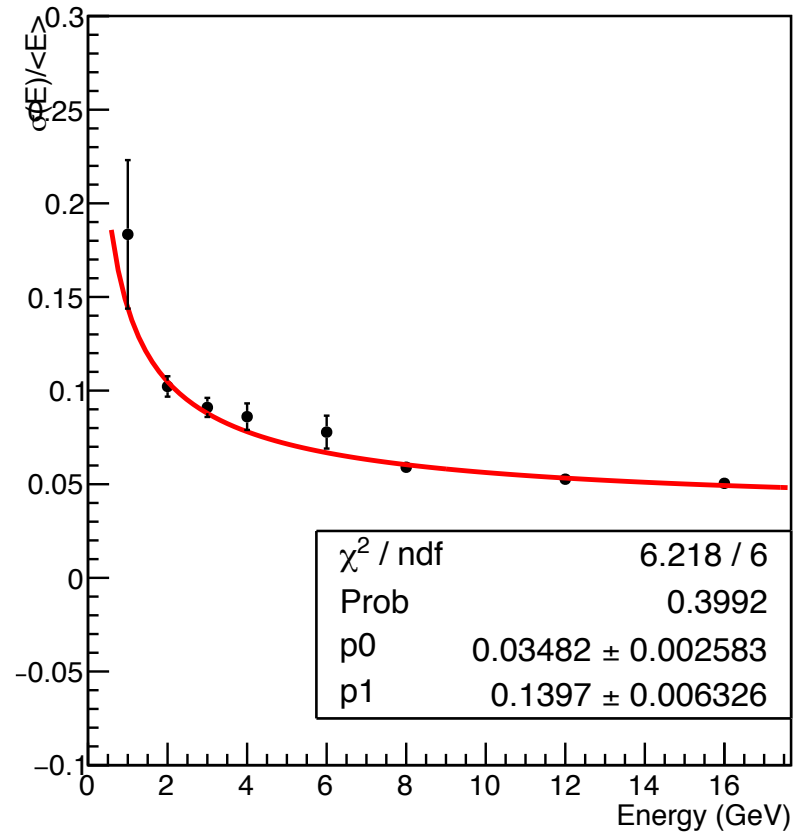


UIUC Tower 21

Energy Resolution



THP



UIUC Tower 21