

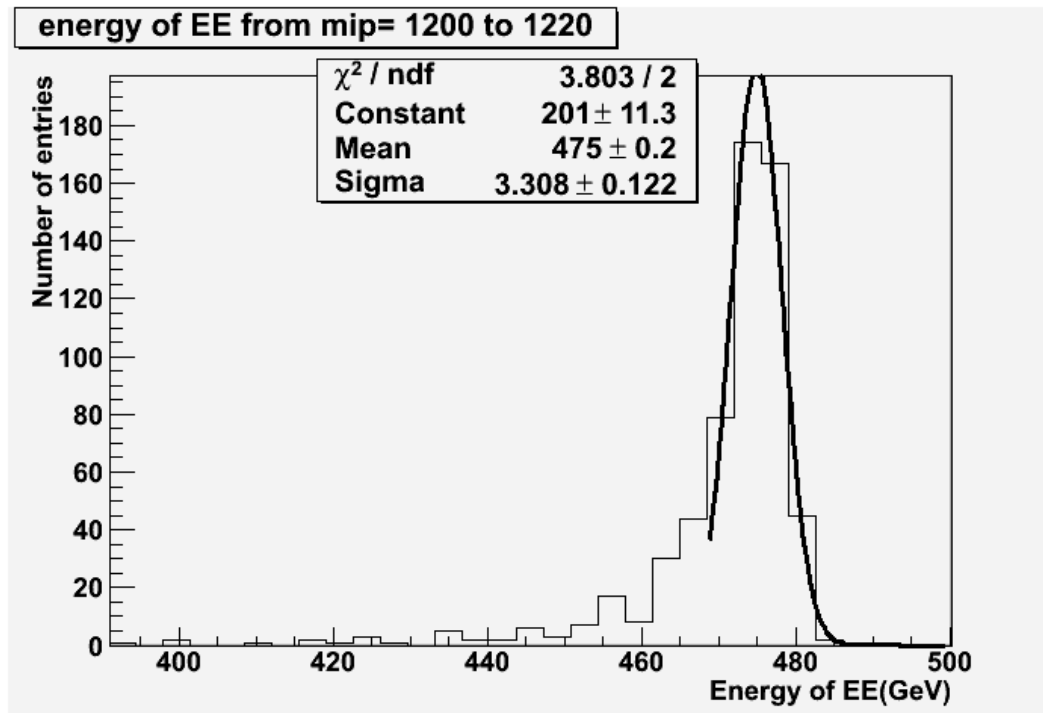
ES-EE slopes obtained from SimHits

Fitting by other method: cut the histogram per 20 MIP and use gaussian fit. Fitting range is from (the location of peak value -1) to 1.5 RMS

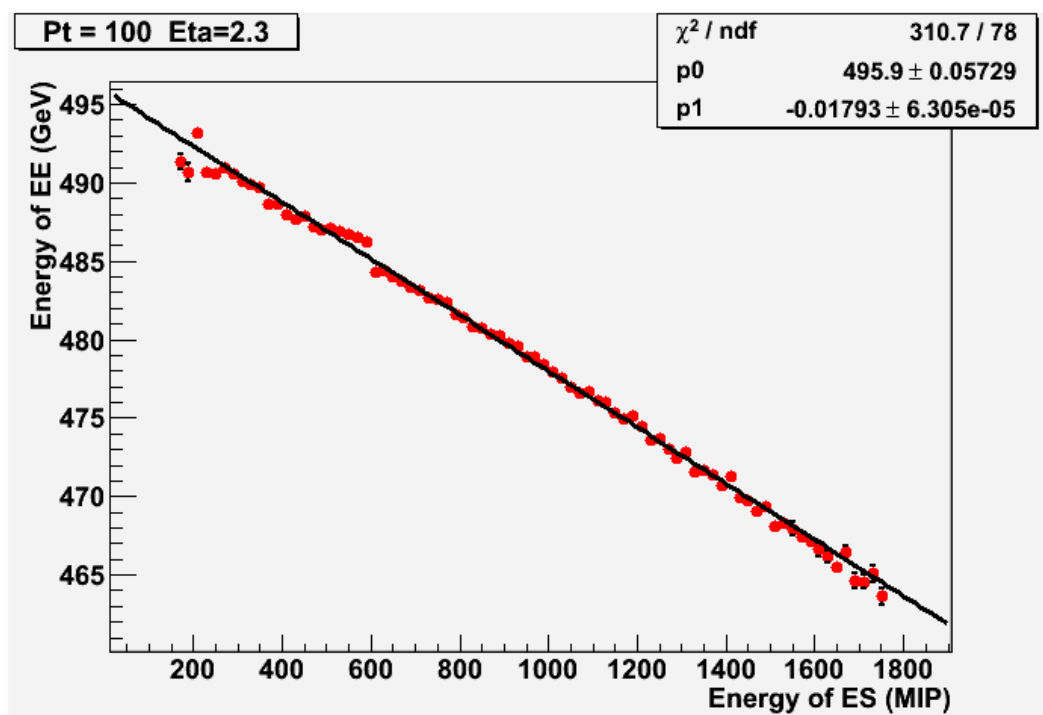
then fit the value of each bin's mean value by straight line fit to get slope.

for example:

one bin fitting:

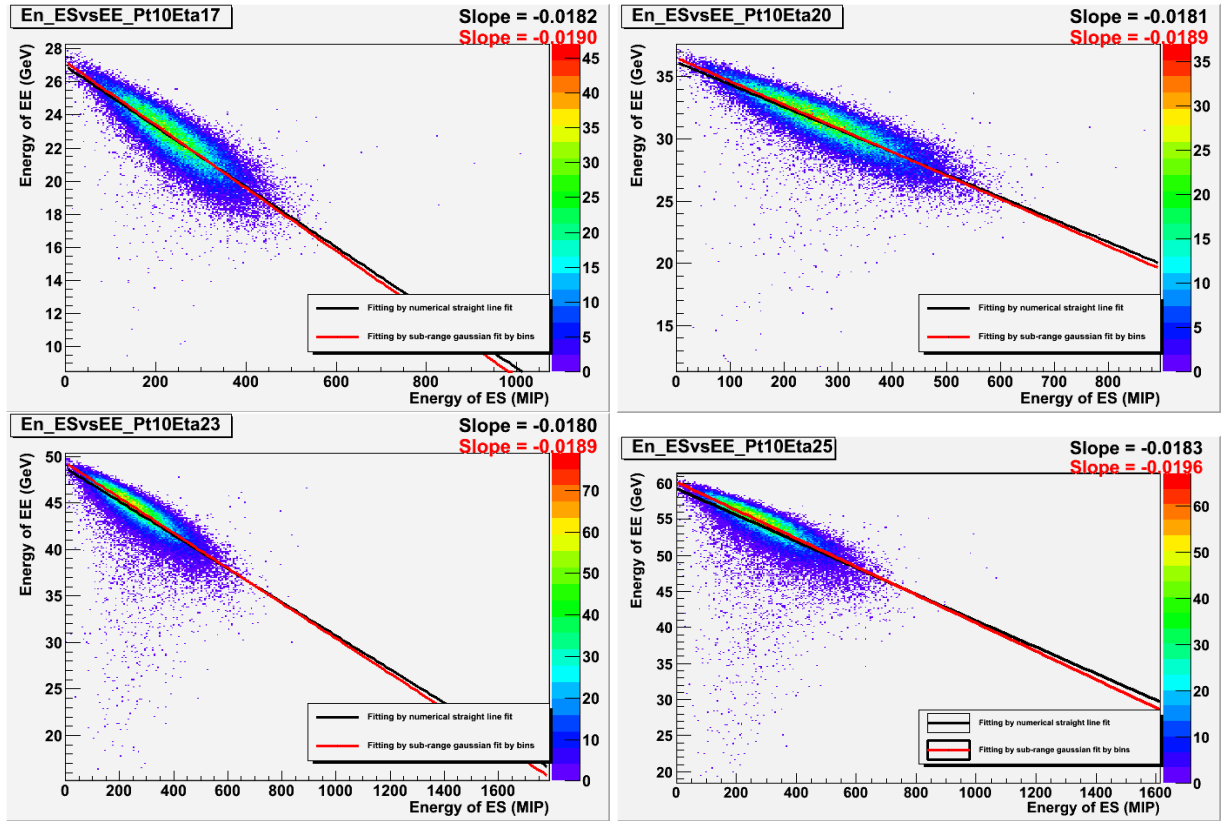


Then we get slope by getting each bin's mean value:

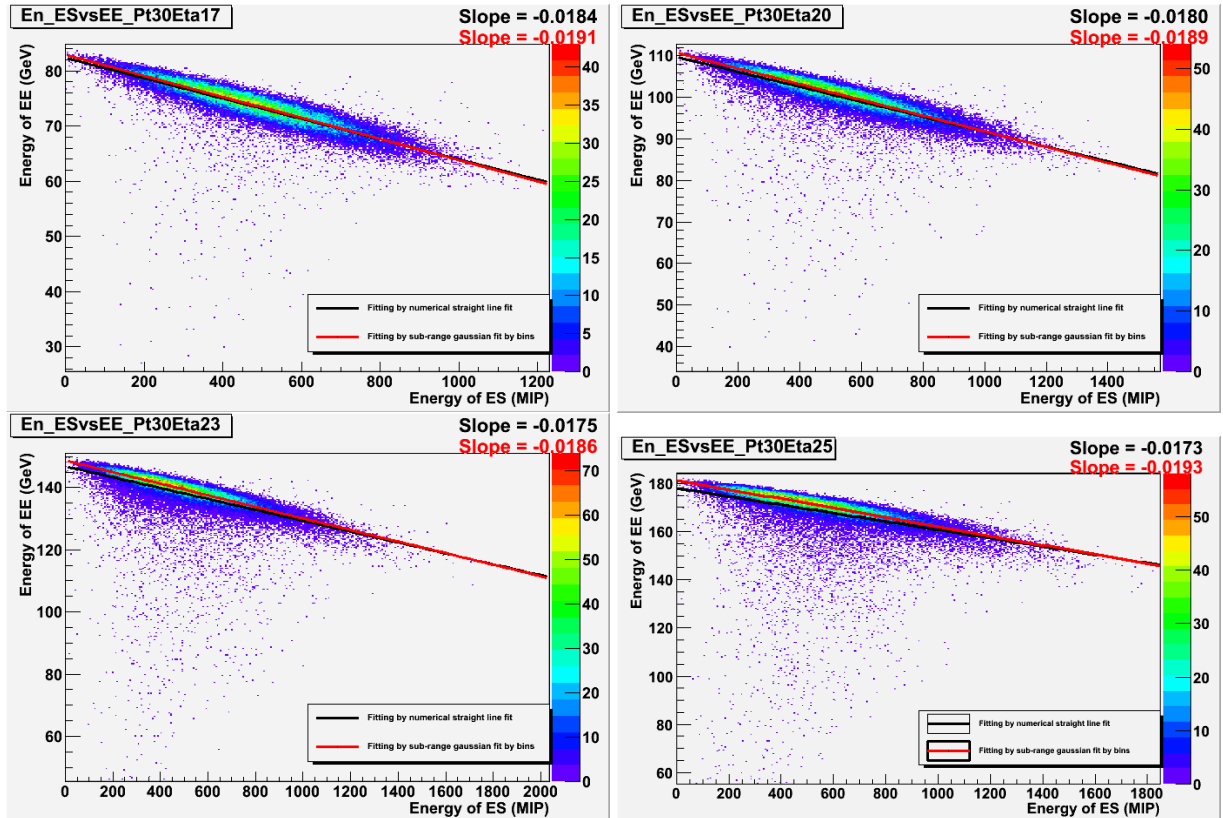


Results:

- Electron Pt = 10

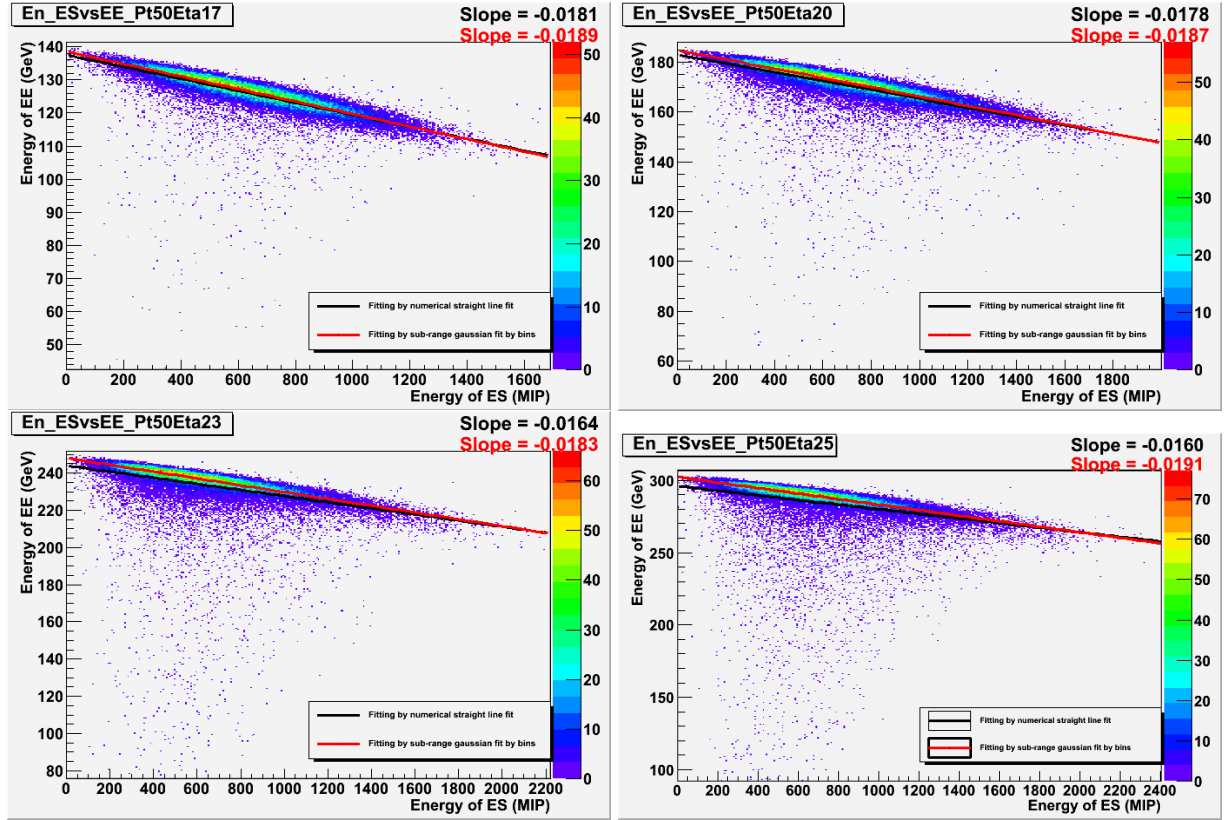


- Electron Pt = 30

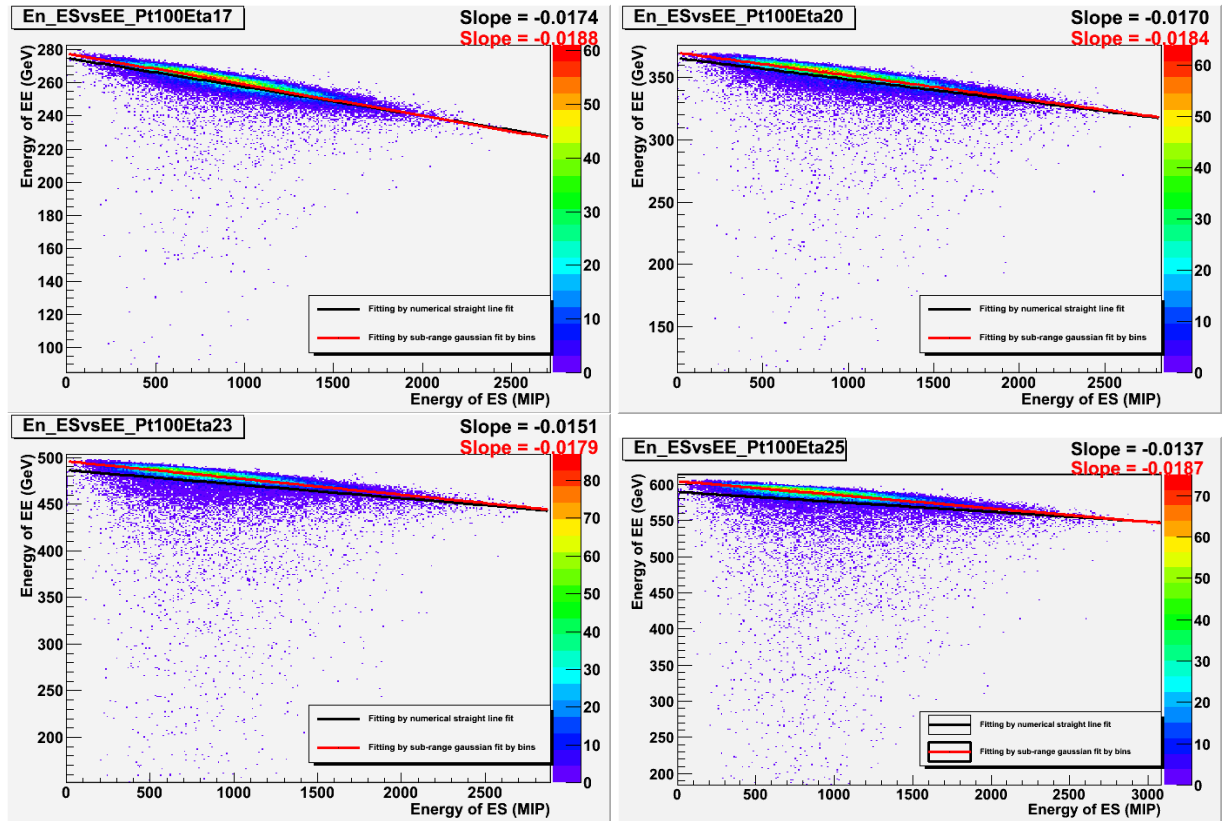


Results:

- Electron Pt = 50



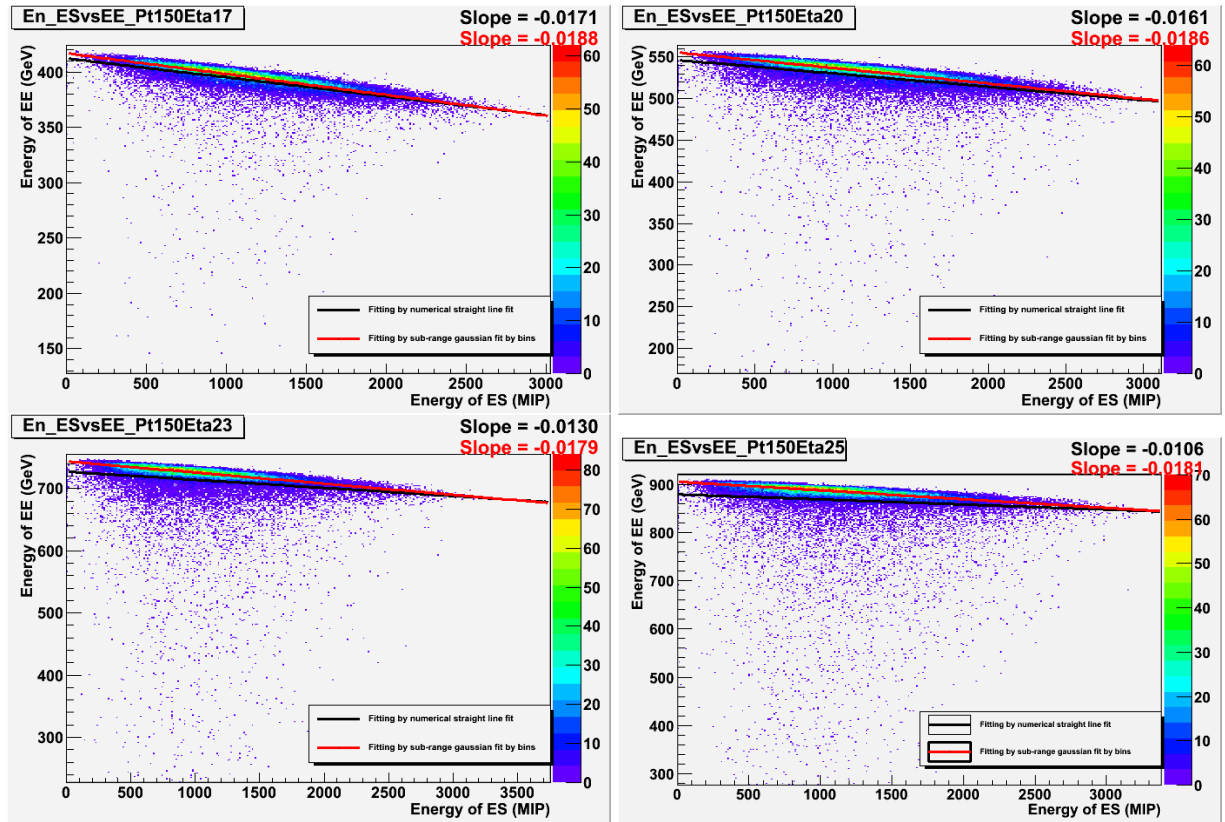
- Electron Pt = 100



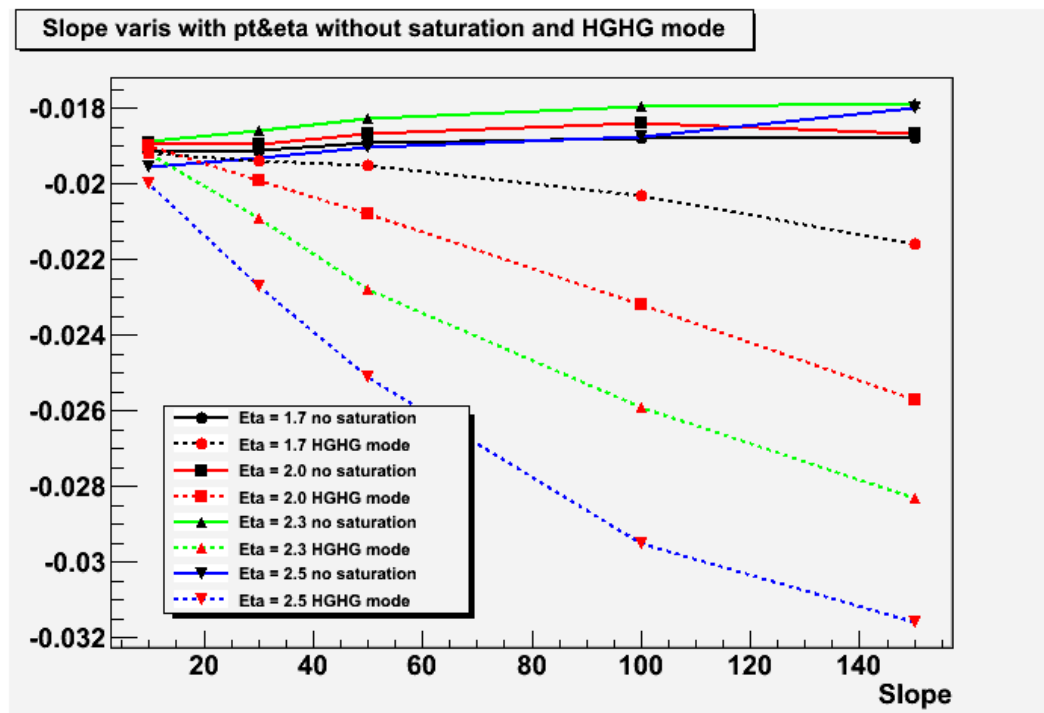
- Electron Pt = 150

Results:

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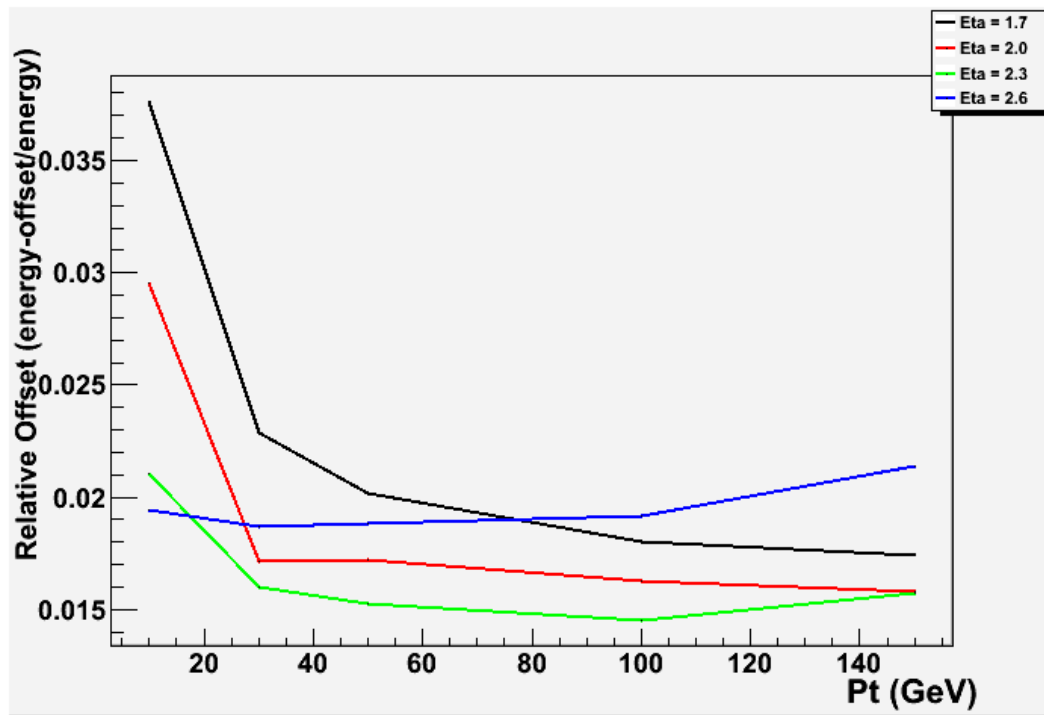


- Slope of Different Eta and Pt



- Offset of Different Eta and Pt

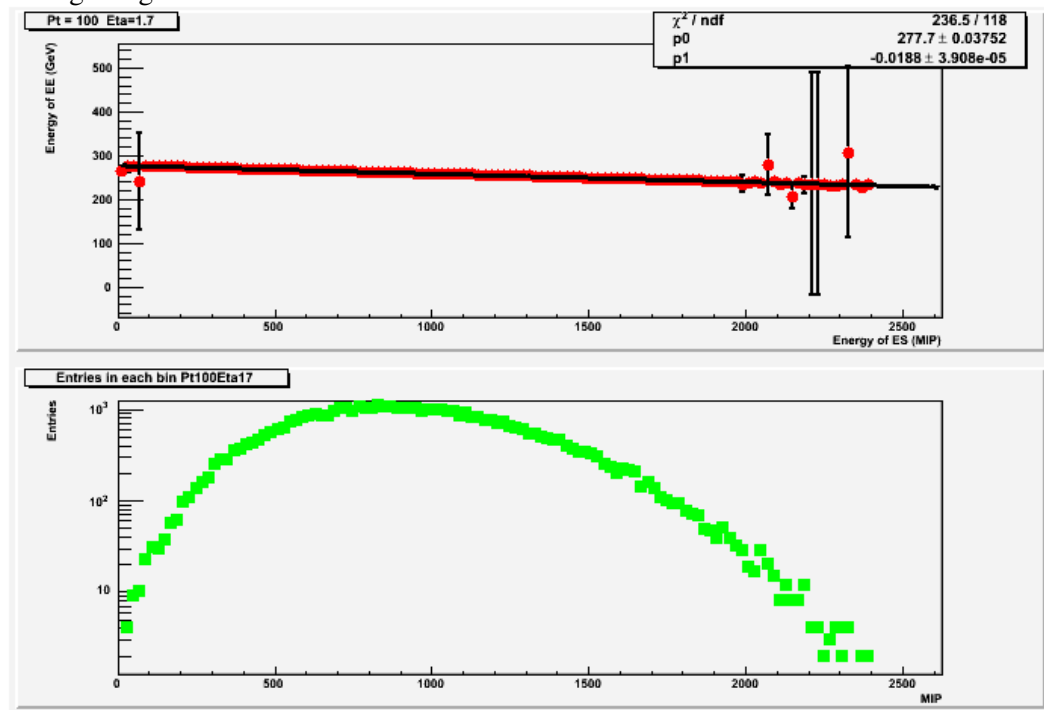
Results:



- Effect of fitting range

Pt=100 Eta=1.7 (slope = p1)

Fitting Range: 0~2400 & Entries of each bin

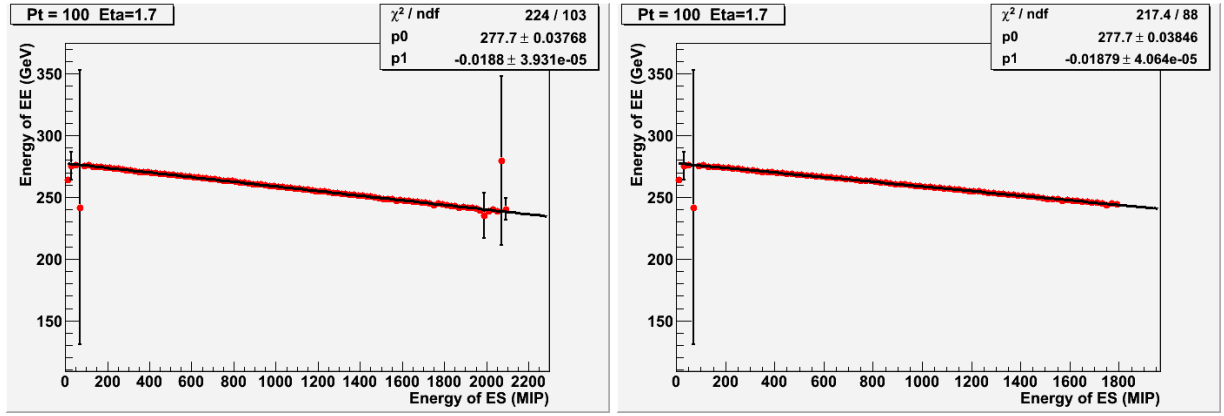


Fitting Range 0~2100

Fitting Range 0~1800

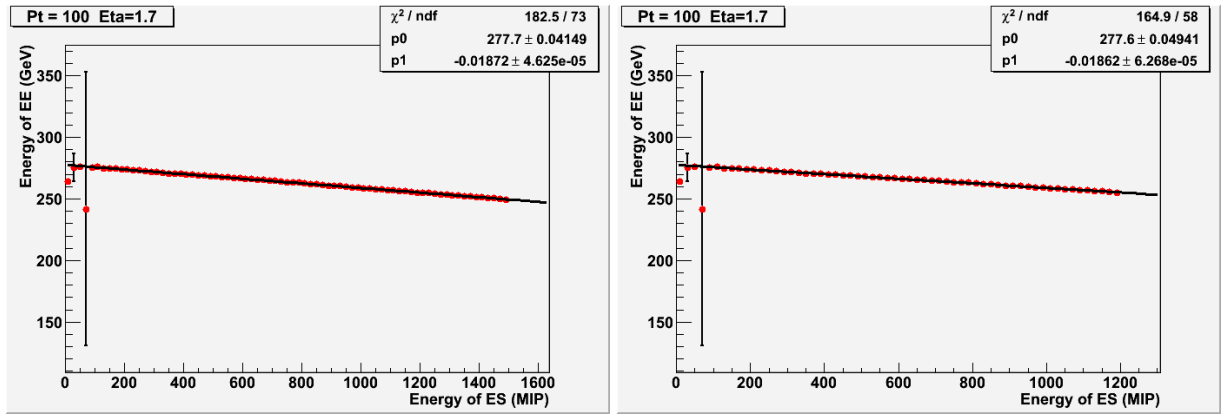
Results:

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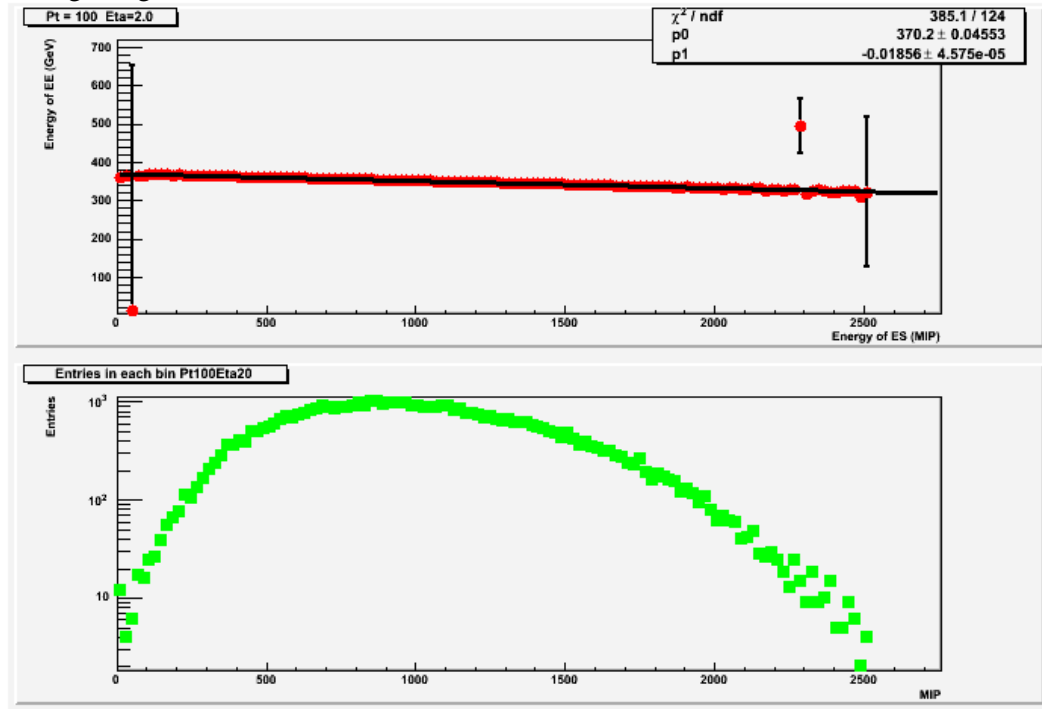
Fitting Range 0~1500

Fitting Range 0~1200



Pt=100 Eta=2.0

Fitting Range: 0~2520 & Entries of each bin

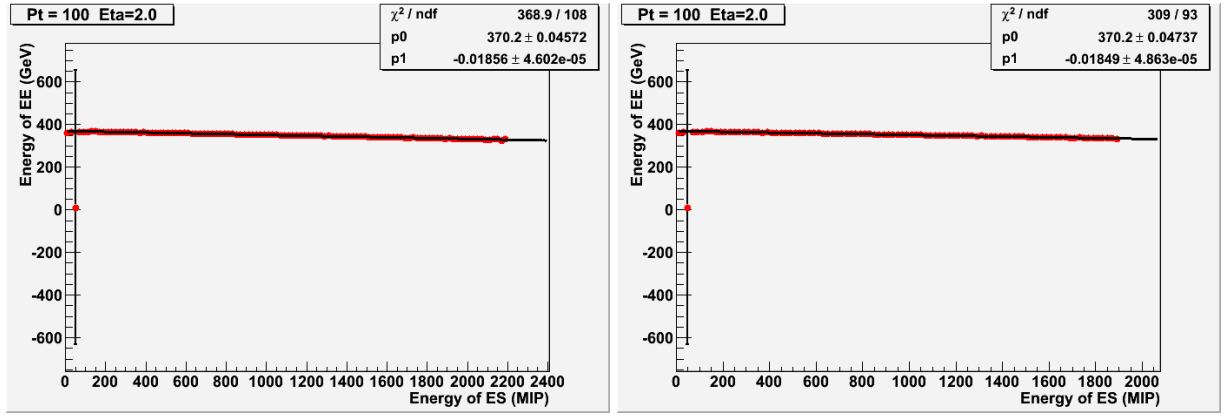


Fitting Range 0~2200

Fitting Range 0~1900

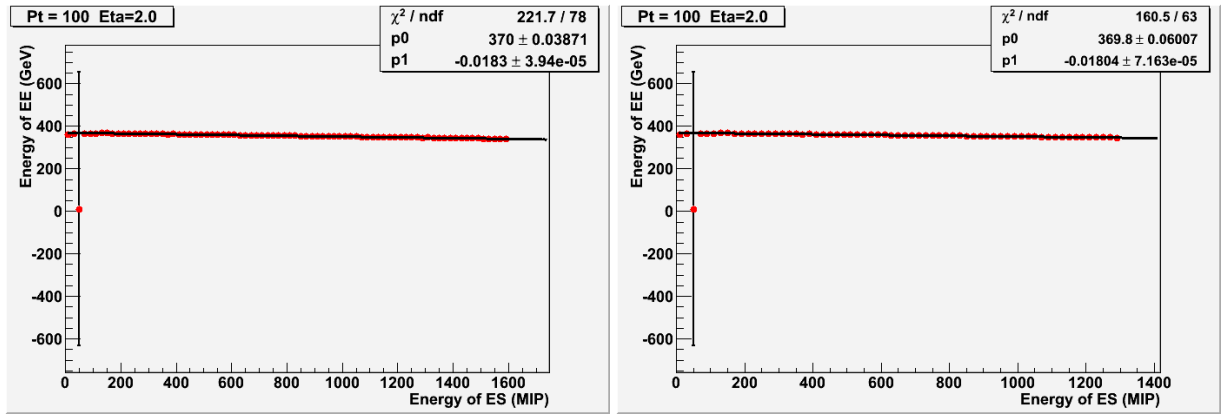
Results:

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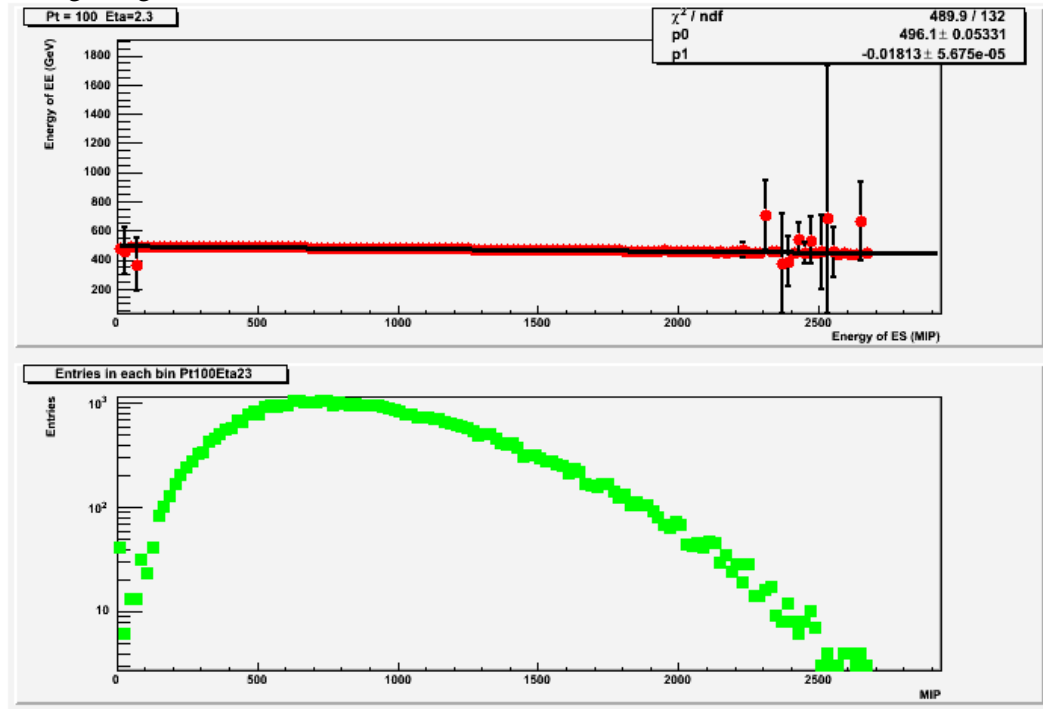
Fitting Range 0~1600

Fitting Range 0~1300



Pt=100 Eta=2.3

Fitting Range: 0~2680 & Entries of each bin

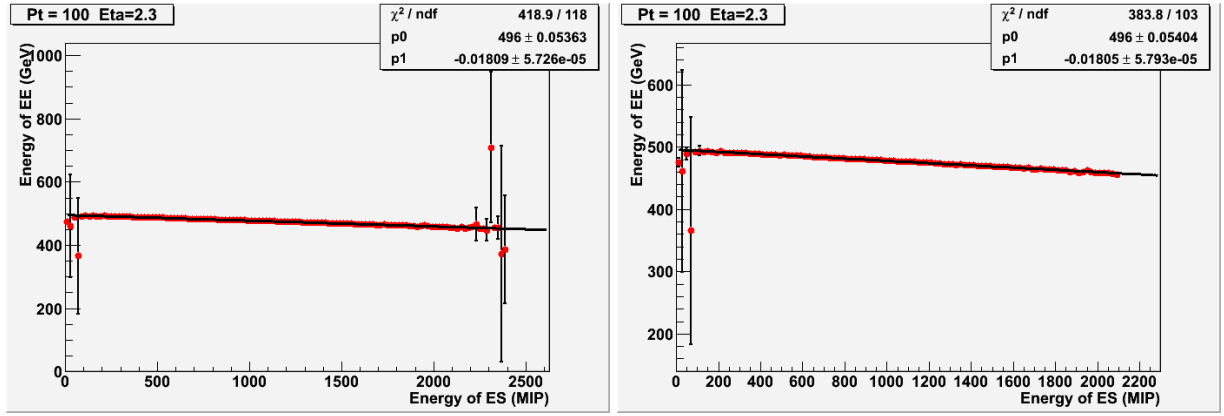


Fitting Range 0~2400

Fitting Range 0~2100

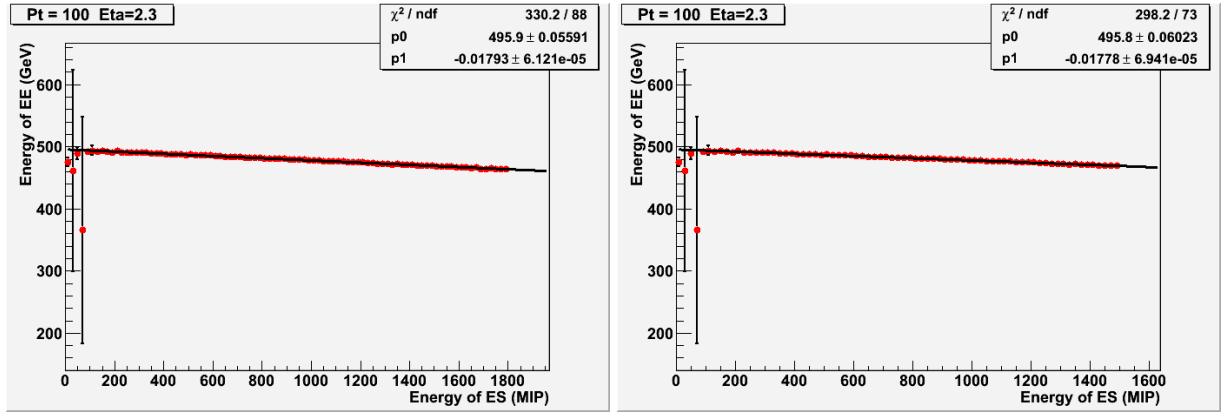
Results:

ES-EECalibration < Main < TWiki



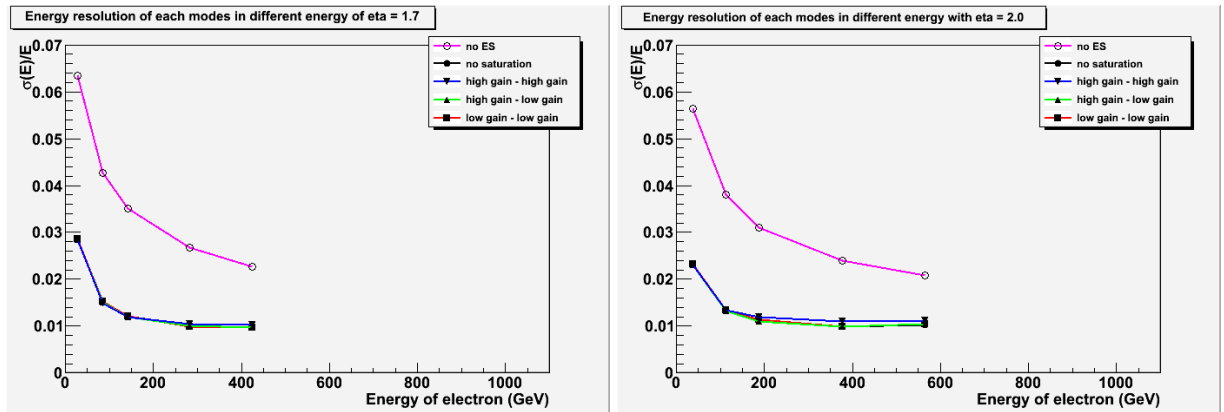
Fitting Range 0~1800

Fitting Range 0~1500

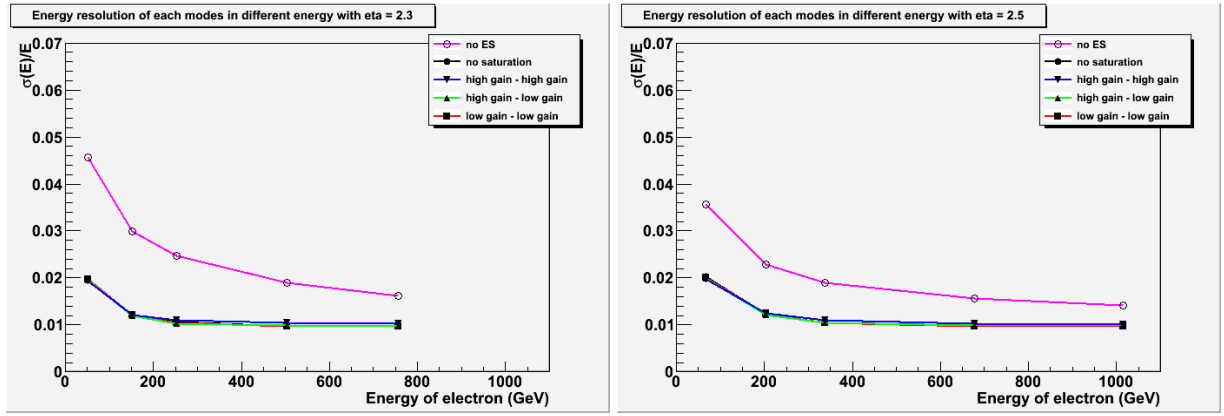


Conclusion: Effect of fitting range on slope is fine.

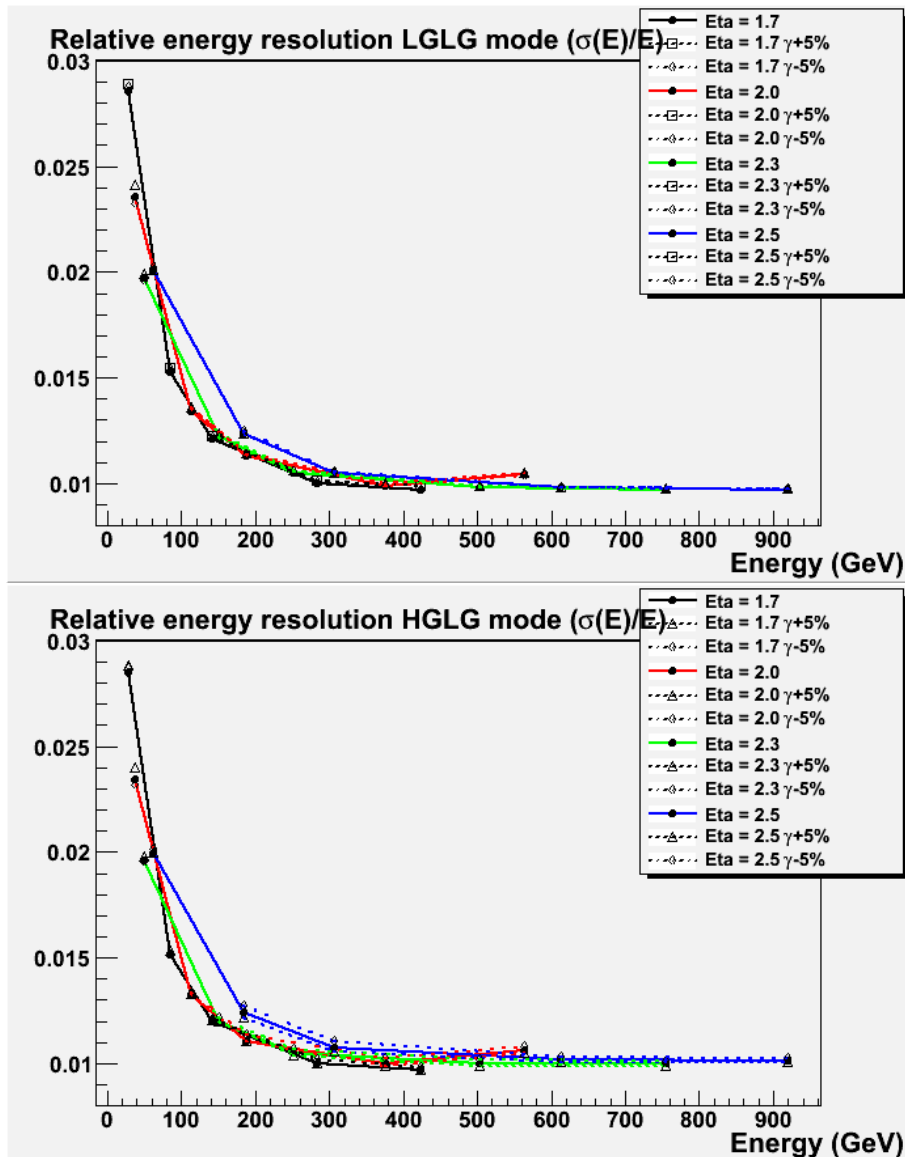
• Energy Resolution

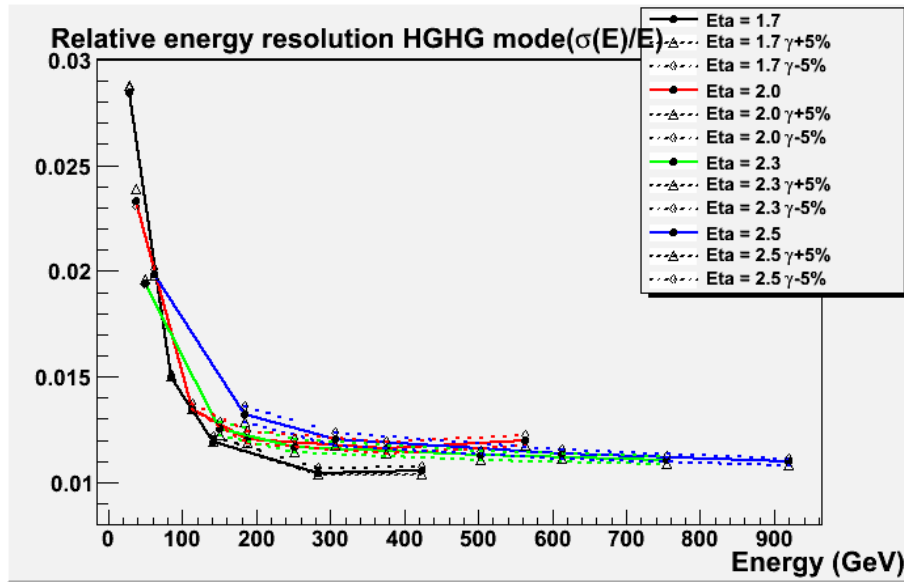


Results:

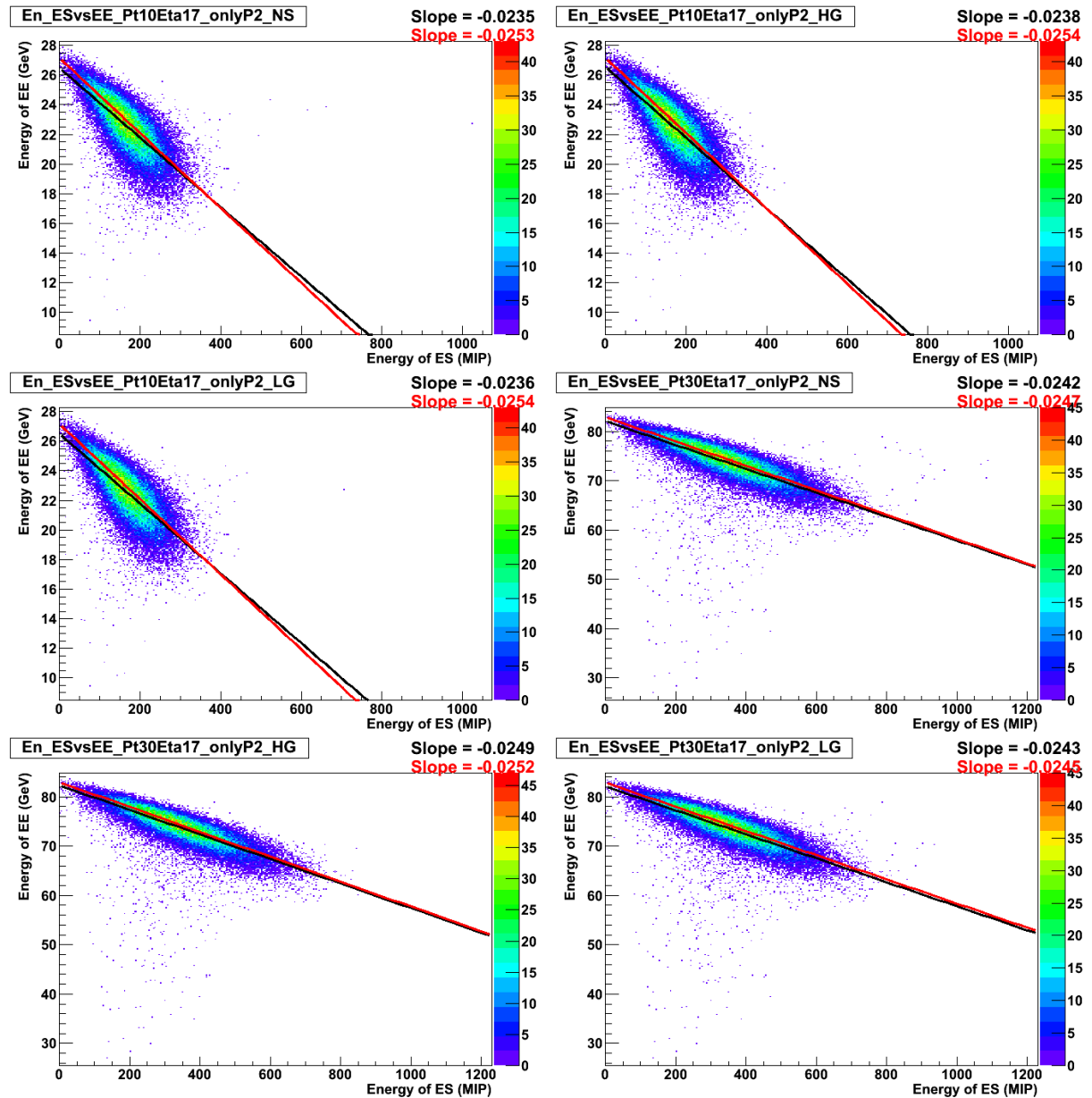


• Energy Resolution of Different Operation Modes



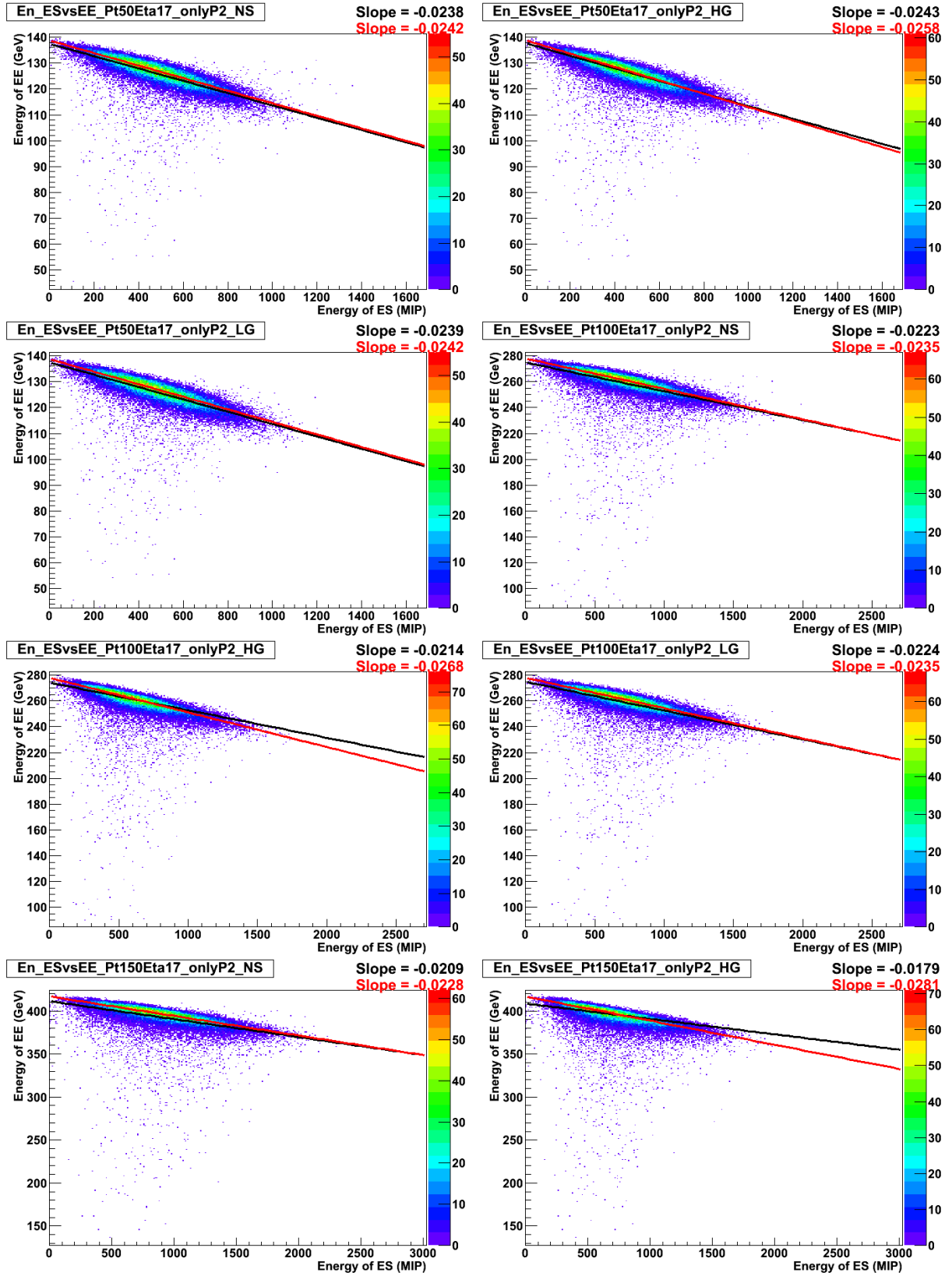


Only use 2nd ES plane to recover the energy

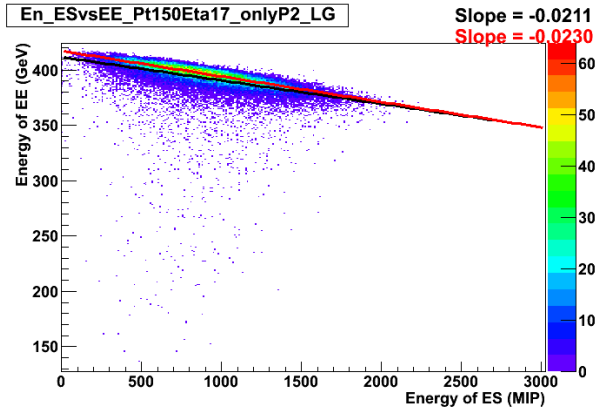


Only use 2nd ES plane to recover the energy

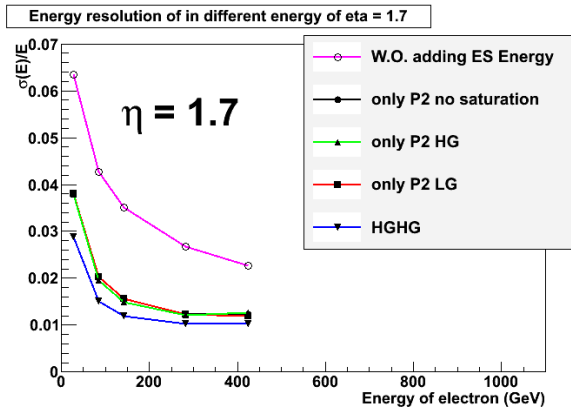
ES-EECalibration < Main < TWiki



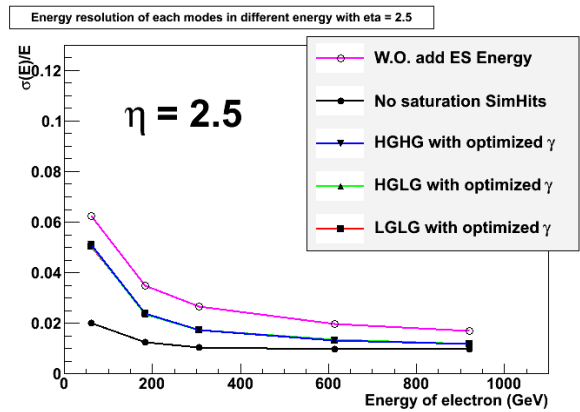
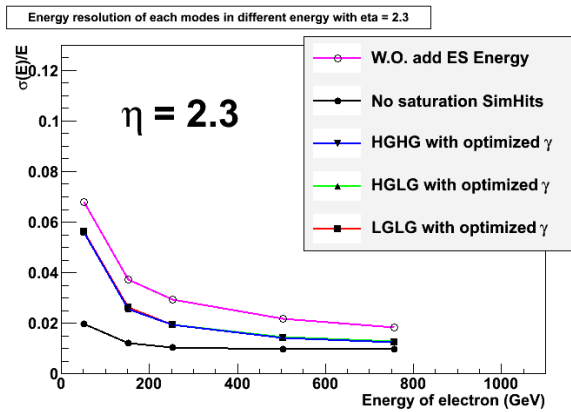
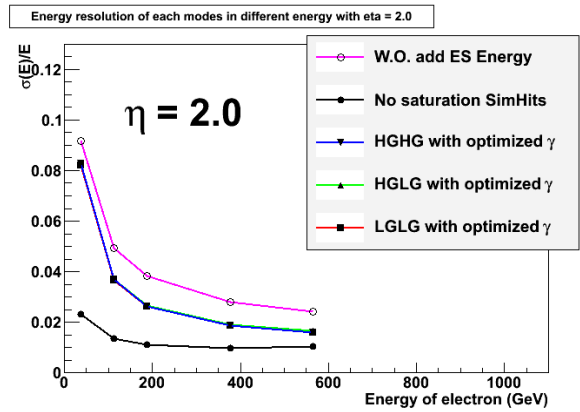
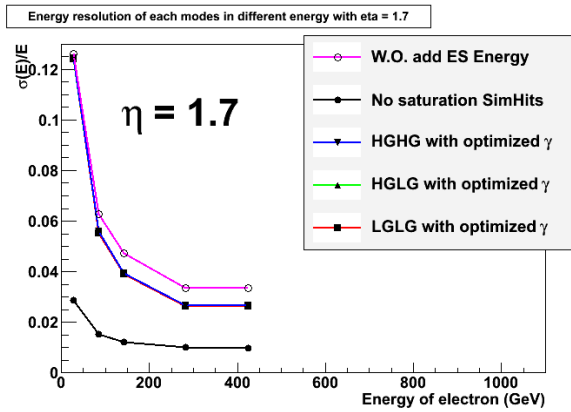
Only use 2nd ES plane to recover the energy



- Energy resolution of only 2nd plane (only add 2nd plane's energy back)

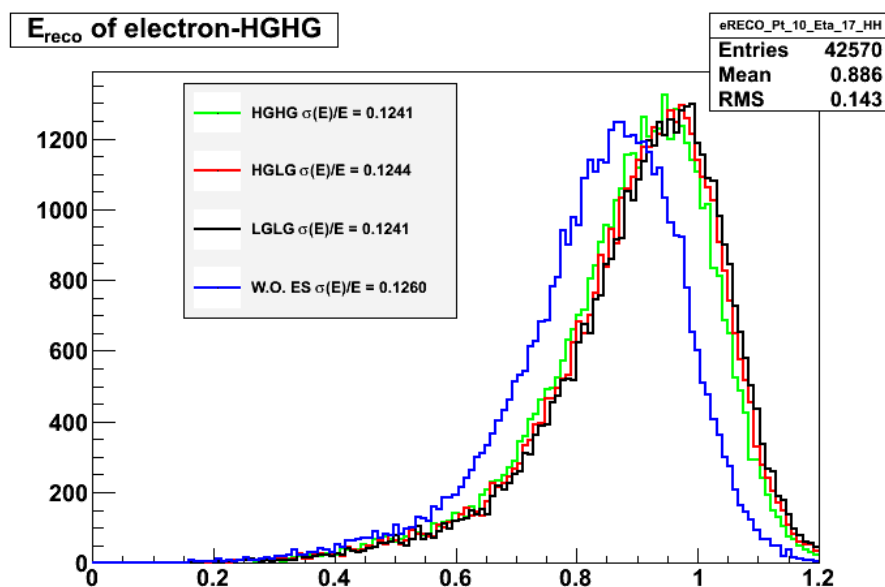


- Energy resolution of RecHits by Clustering



- Reconstructed energy spectrum using clustering

Only use 2nd ES plane to recover the energy



Pt = 10, Eta = 1.7

ChiaMingKuo - 2009-09-14

This topic: Main > ES-EECalibration

Topic revision: r21 - 2009-11-20 - KuanHsinCHEN



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