

RHRS Shower Calibration

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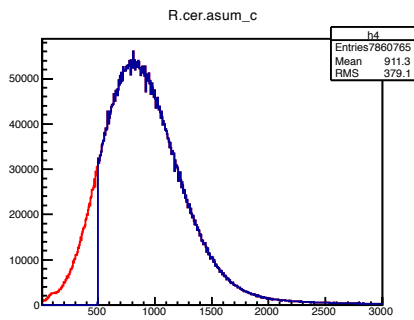
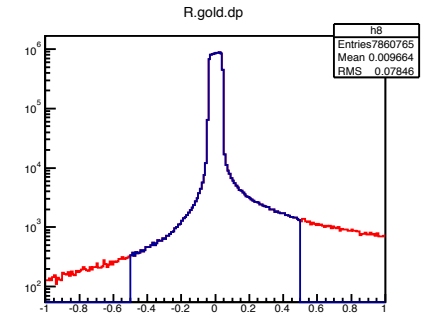
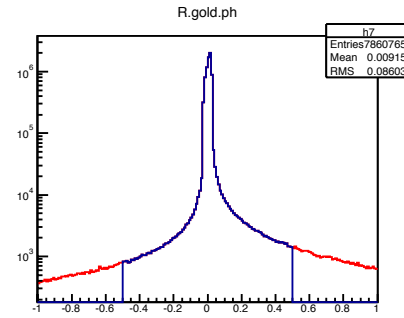
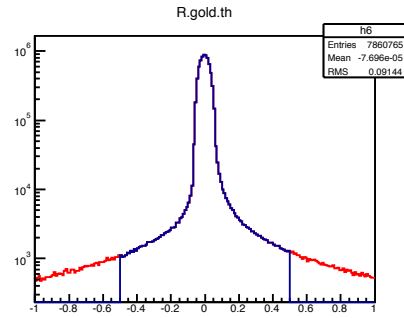
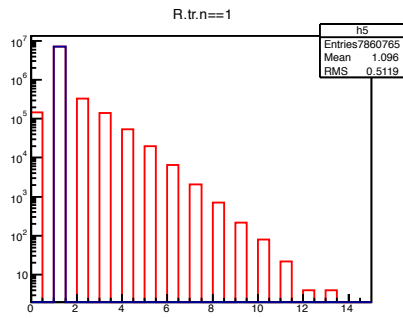
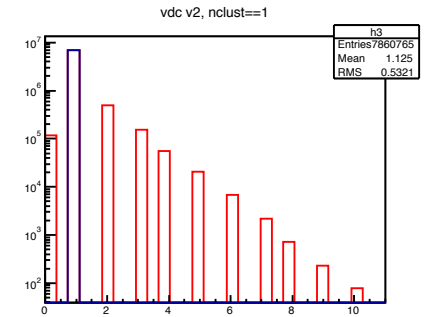
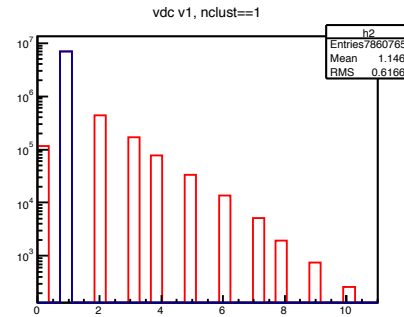
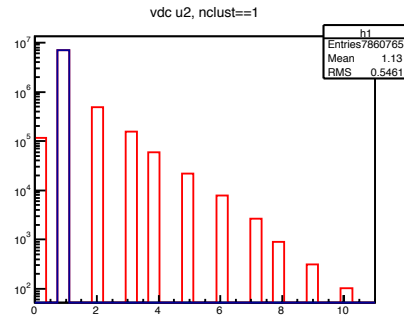
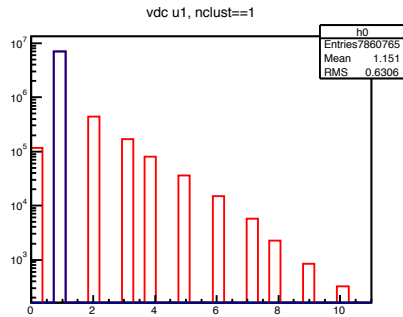
Procedure

- Electron selection
- Fumili Minimization
- E_{tot}/p
- Stability Check

Electron Selection

- Obtain a pure electron sample by requiring the following cuts:
 - Single track reconstruction in the VDC
 - Sum amplitude of calibrated Cherenkov
 - Momentum of the track (golden variables)
 - Cut out edges of shower

Electron Cuts



Fumili Minimization

$$\chi^2 = \sum_i^n [\sum C_j (A_j^i - P_j) + \sum C_k (A_k^i - P_k) - P_{kin}^i]^2$$

i = event #

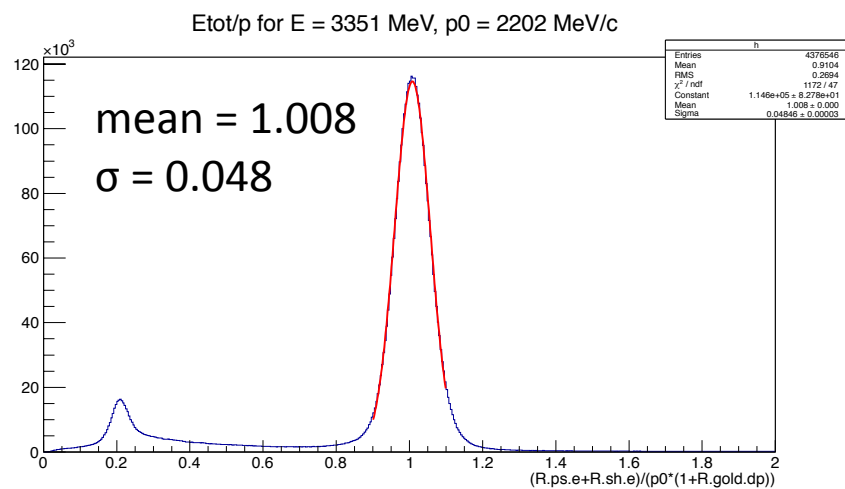
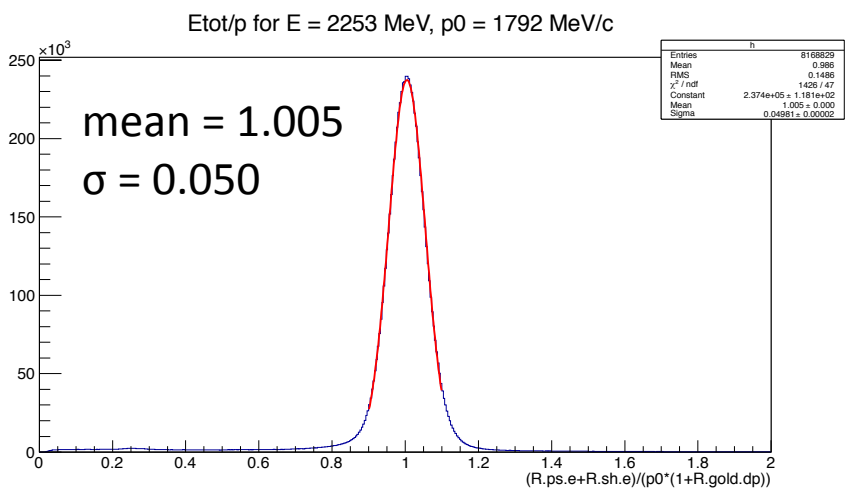
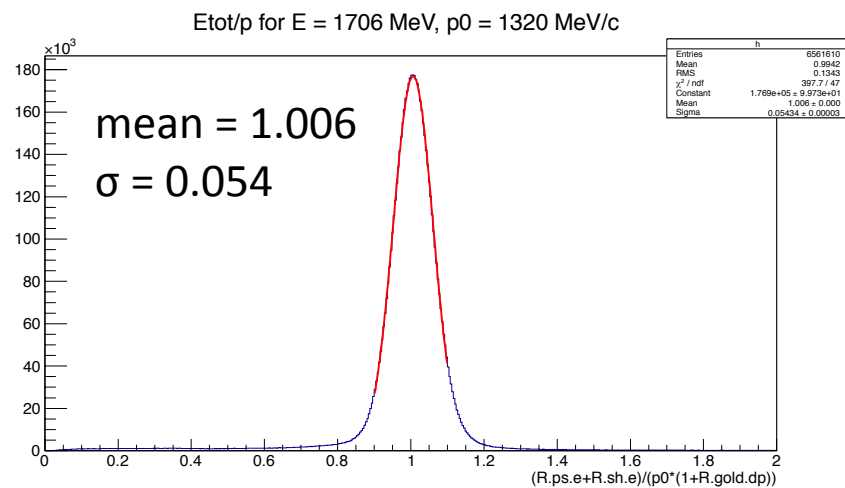
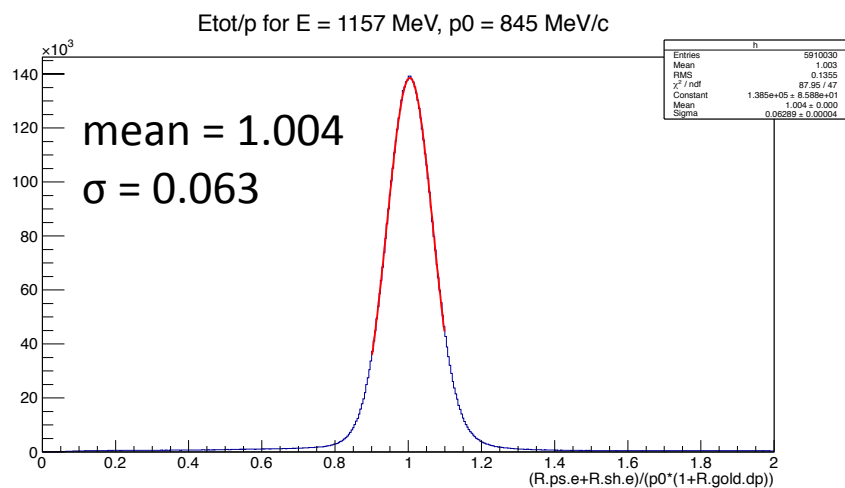
j (k) = # of preshower (shower) block included in the cluster for the i^{th} event

A_j^i (A_k^i) = Amplitude value in the j^{th} (k^{th}) preshower (shower) block

P_j (P_k) = Pedestal value of the j^{th} (k^{th}) preshower (shower) block

C_j (C_k) = Calibration constants for the preshower (shower)

E_{tot}/p



RHRS PreShower/Shower Calibration Stability Check

