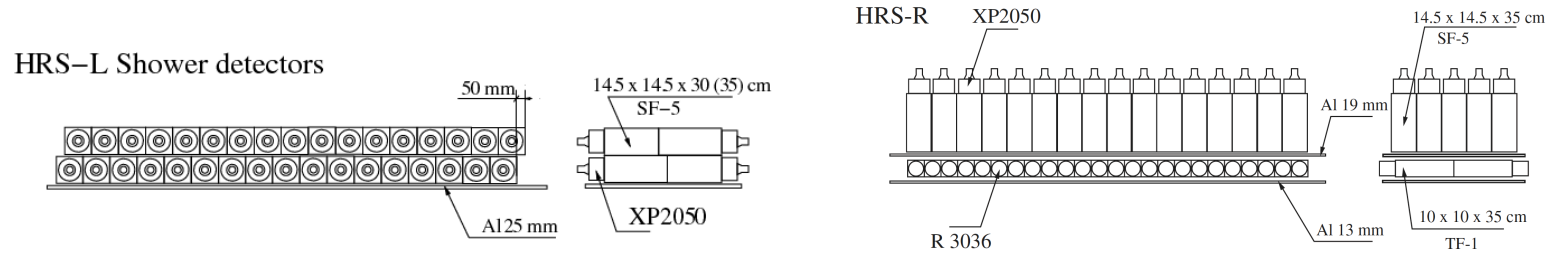
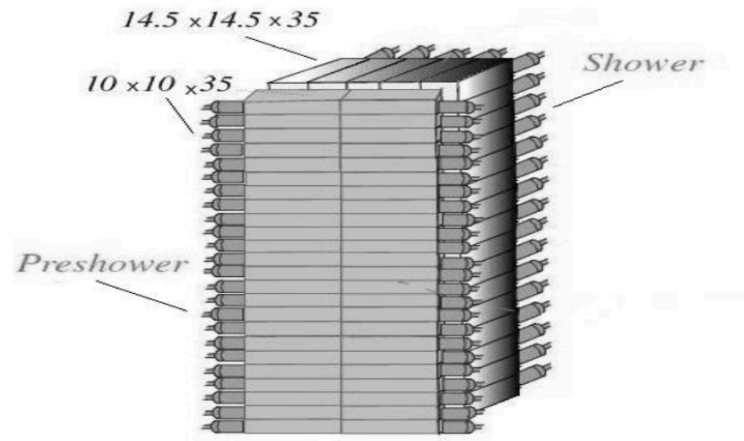


Calorimeters

Layout and issue



- Works fine for DVCS and GMP
- cable map maybe not exactly correct



Calibration

- Find the relation gain/ADC amplitude \rightarrow energy \rightarrow coefficient
- Coarse Calibration \rightarrow HV adjust
 - all the PMT perform uniformly and $C_i \approx 1$
 - cosmic rays run /100MeV
 - empirical equation $(V_1/V_2) \sim (A_1/A_2)^7$
- Determine the C_i precisely : different method for L/R

calibration

left arM | Right arm

Not total energy absorption detector | total energy absorption detector

Energy deposit | with the help of track p

$$\frac{dE}{dl} = E_0 b \frac{(bl)^{a-1} e^{-bl}}{\Gamma(a)}$$

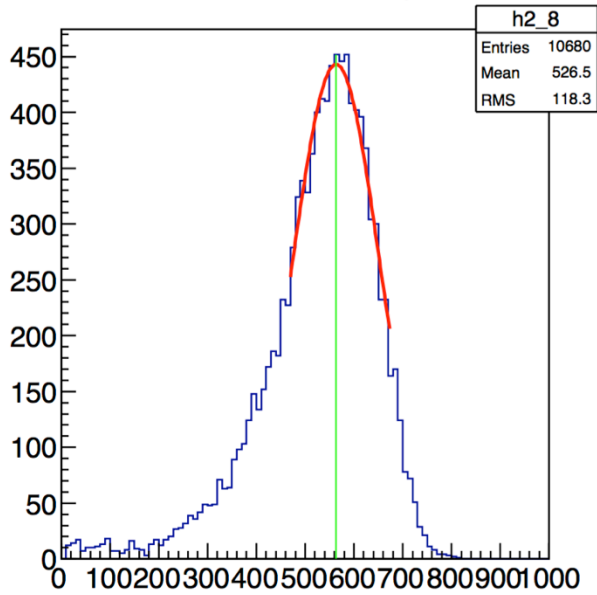
$$\chi^2 = \sum_{i=1}^n [\sum C_j \cdot (A_j^i - P_j) + \sum C_k \cdot (A_k^i - P_k) - P_{kin}^i]^2$$

Fit the main electron peak | select a pure electron sample/pass

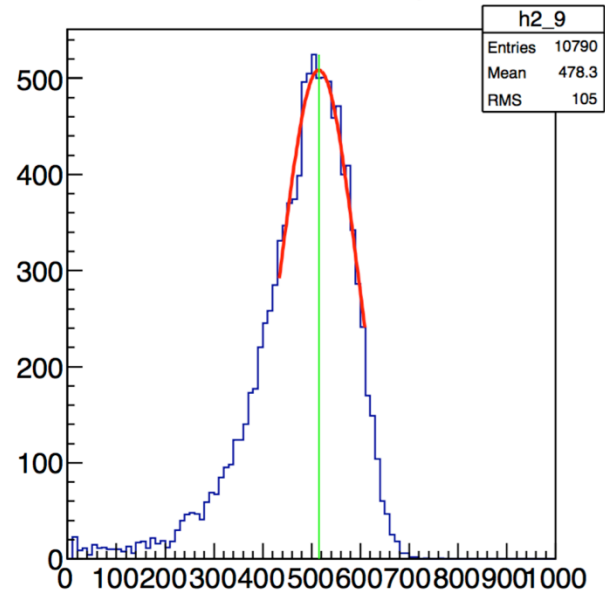
Compare to the calculation result | to root to do minimization

- Try to avoid the elastic run
- Check the calibration result by the energy resolution and E/p distribution

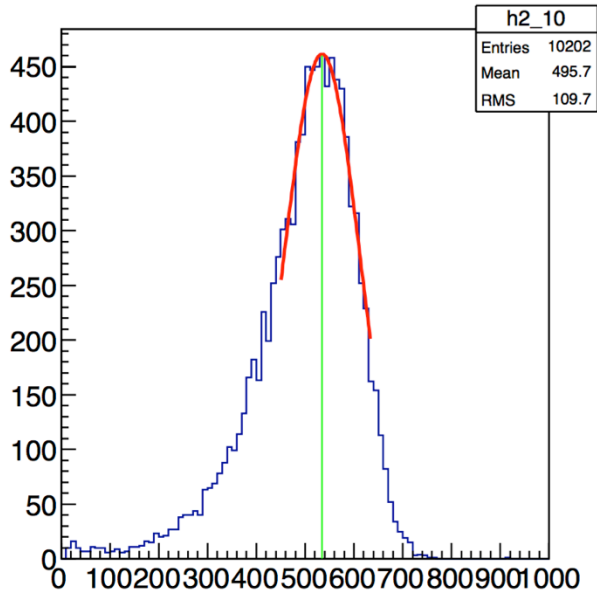
ADC 9 main electron peak



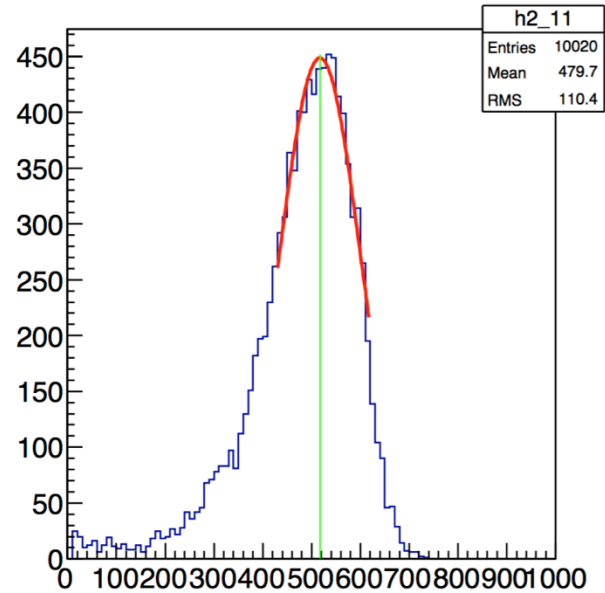
ADC 10 main electron peak



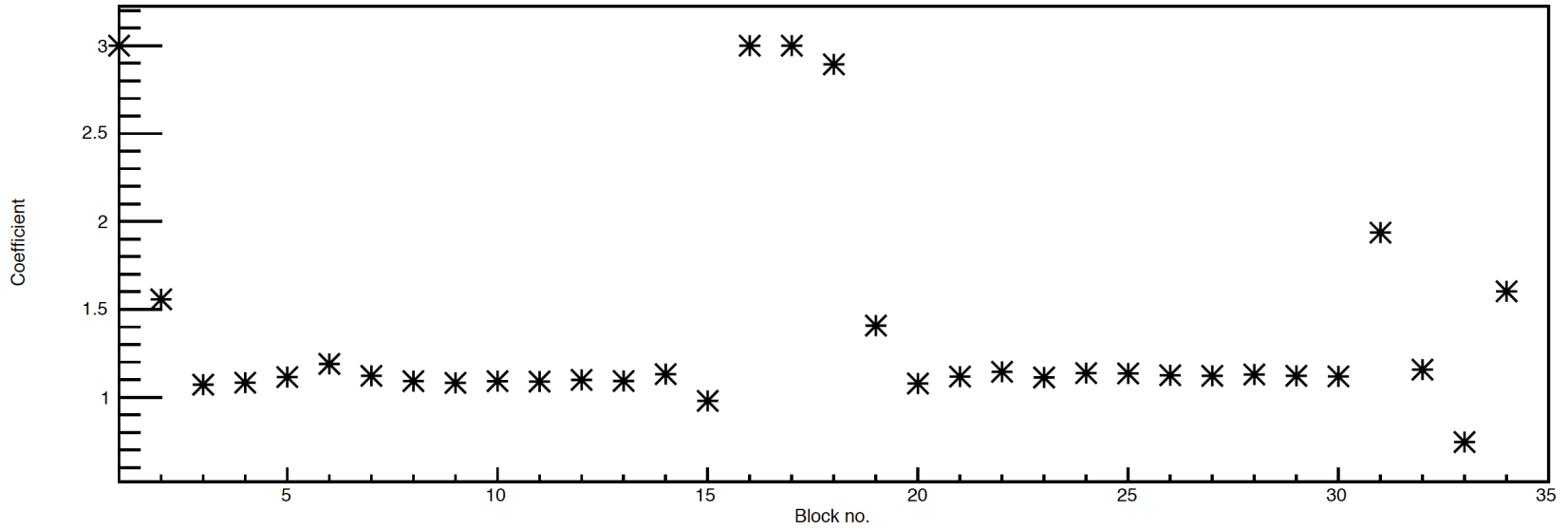
ADC 11 main electron peak



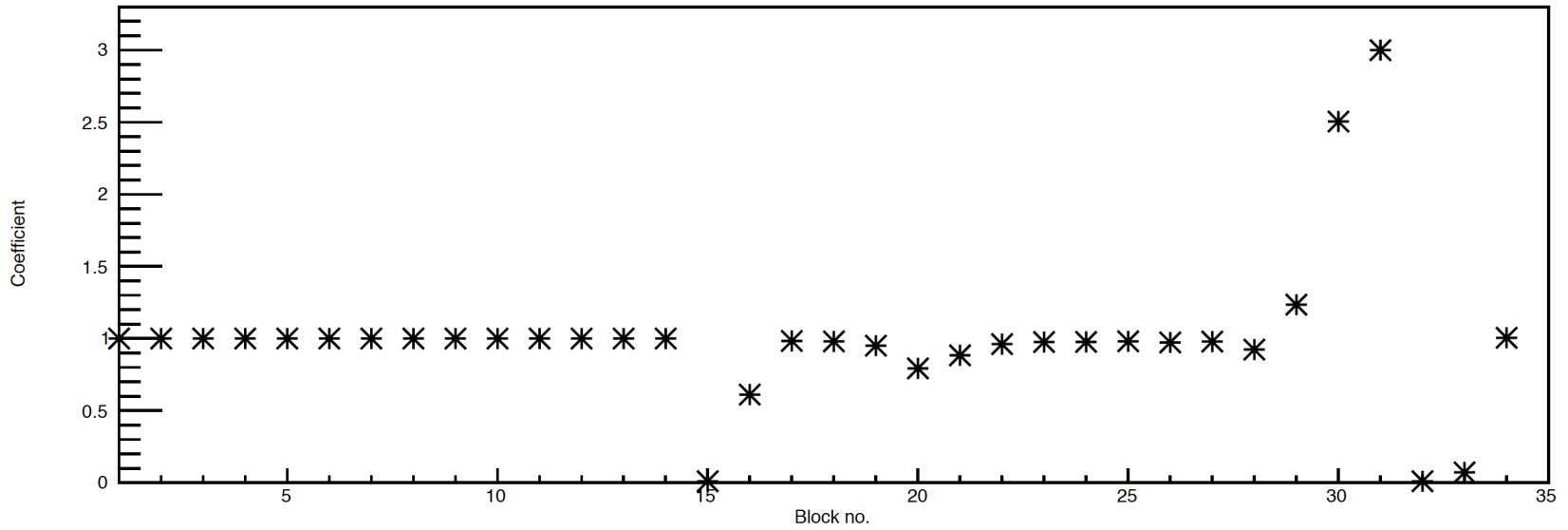
ADC 12 main electron peak



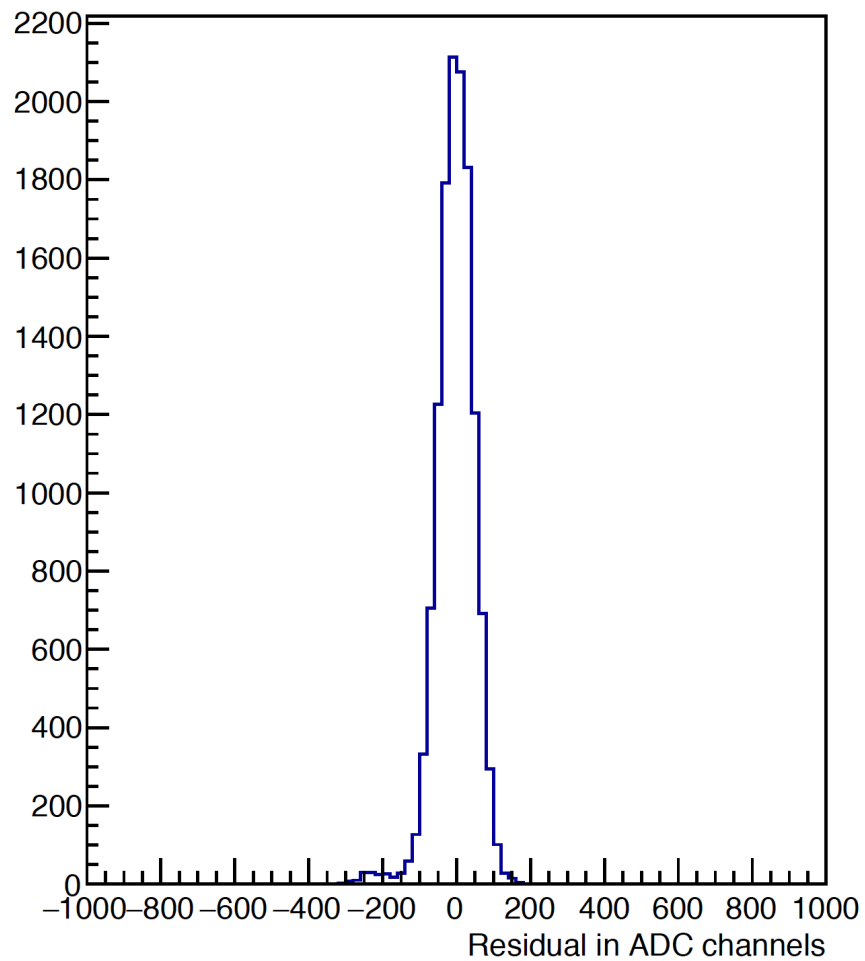
Calibration coefficients for pr11



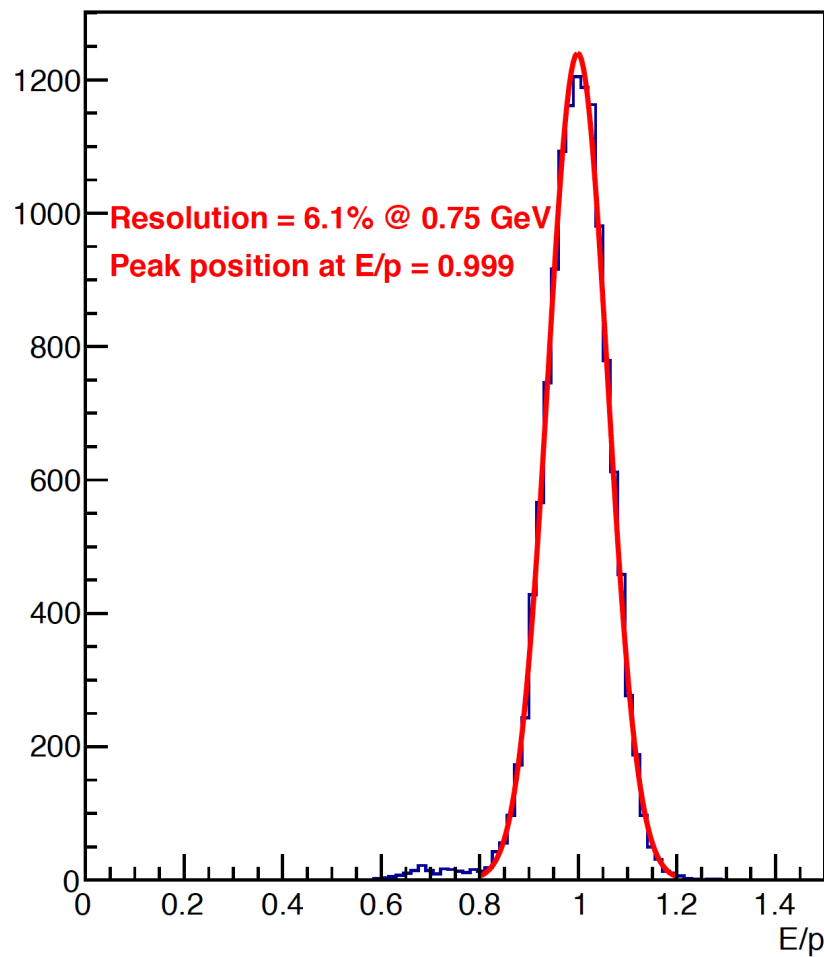
Calibration coefficients for pr12



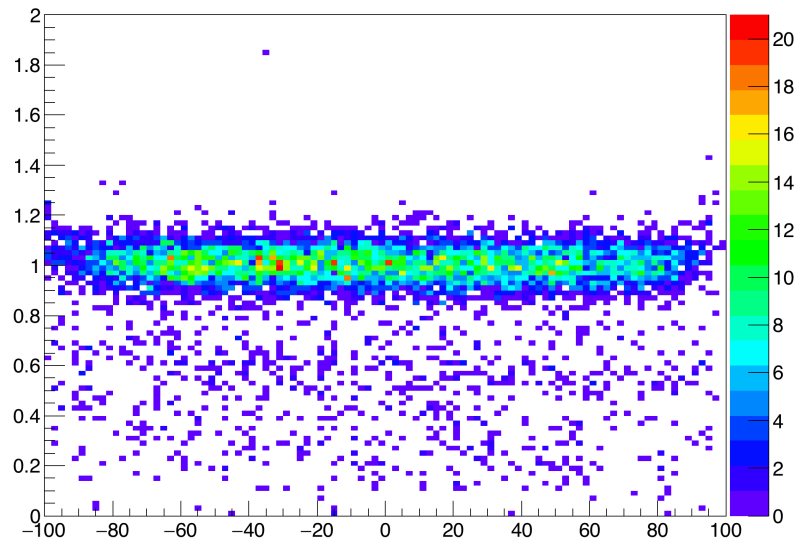
Residuals



E/p



E/p VS X



E/p VS Y

