TOF OCCUPANCY in MINIMUM BIAS events

- 11000 events of stream g in (g13t3c)
  (MINIMUM_BIAS_APRIL_36x36)
- Store 860 / run 135614

A possible goal is to measure the <charge> collected by ANODE on those events:

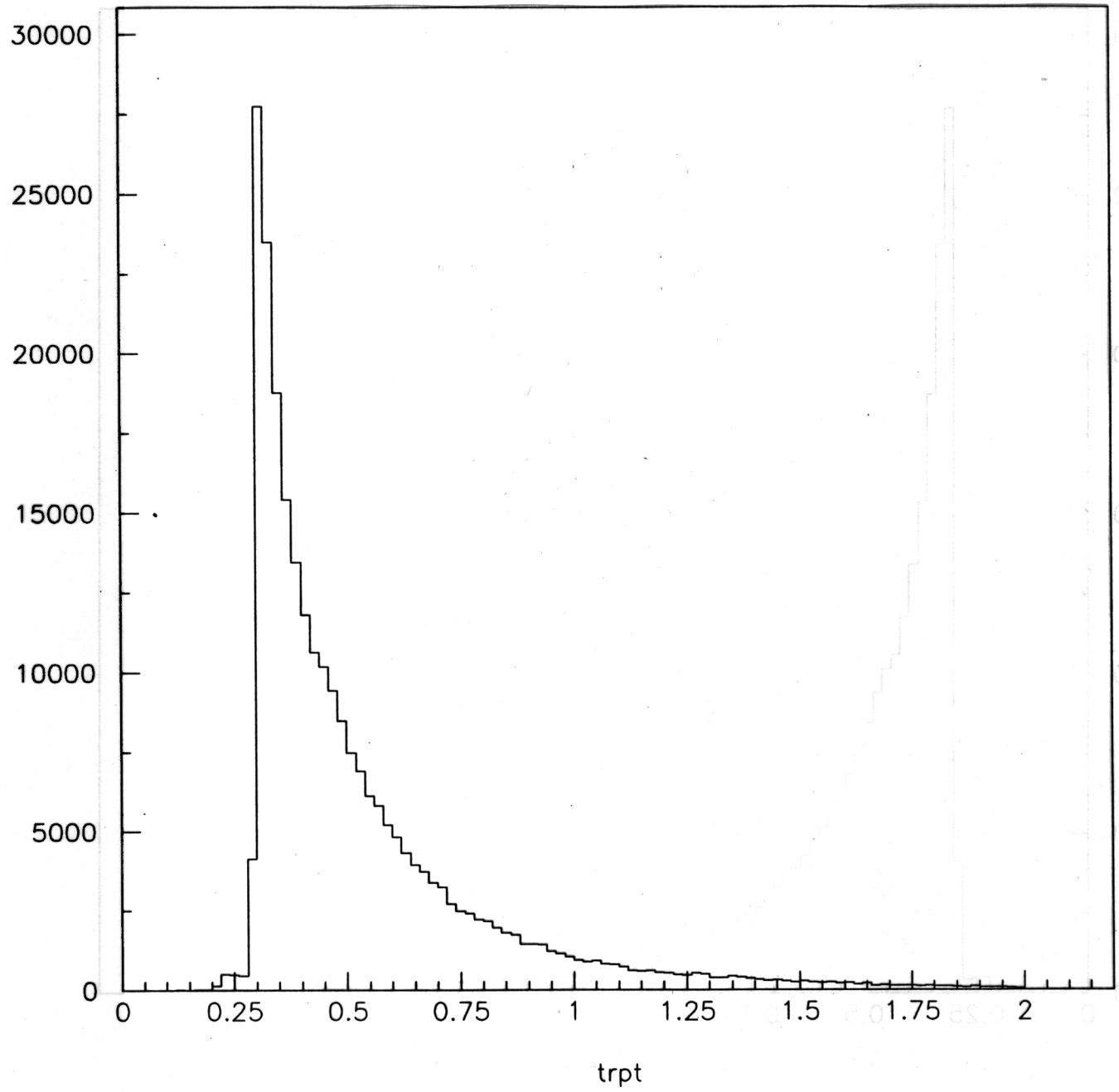
$$\bar{Q} = \left(\frac{1}{N_{ev}} \sum_{ev} \sum_{i \neq j}^{i} x_i \left(\frac{dE}{dx} \right)_i e^{-\frac{d_i}{\lambda}} \right) \varepsilon S_k G$$

→ measure the CURRENT

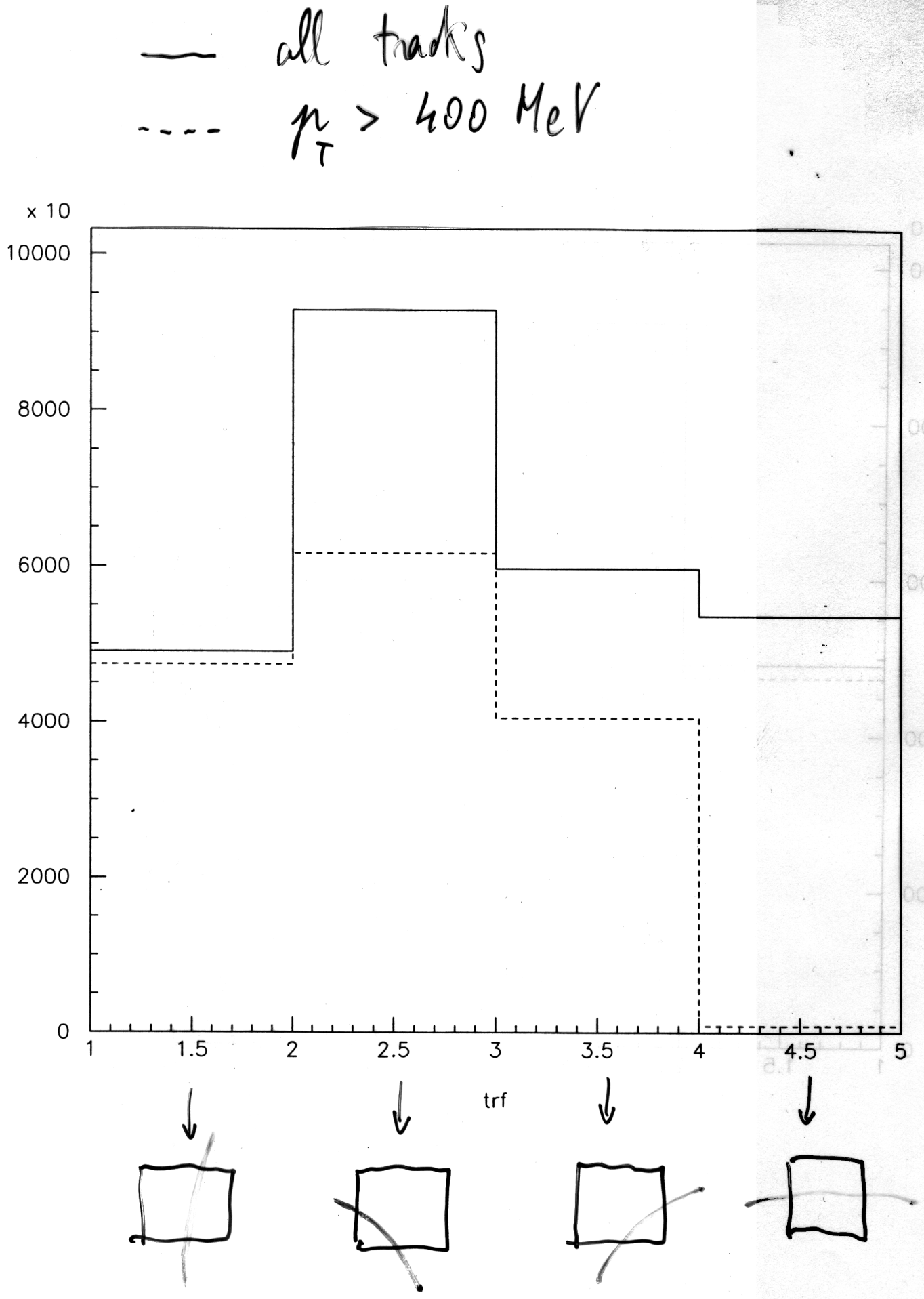
⇓

HV/Gain tuning ; ADC Gate tuning.

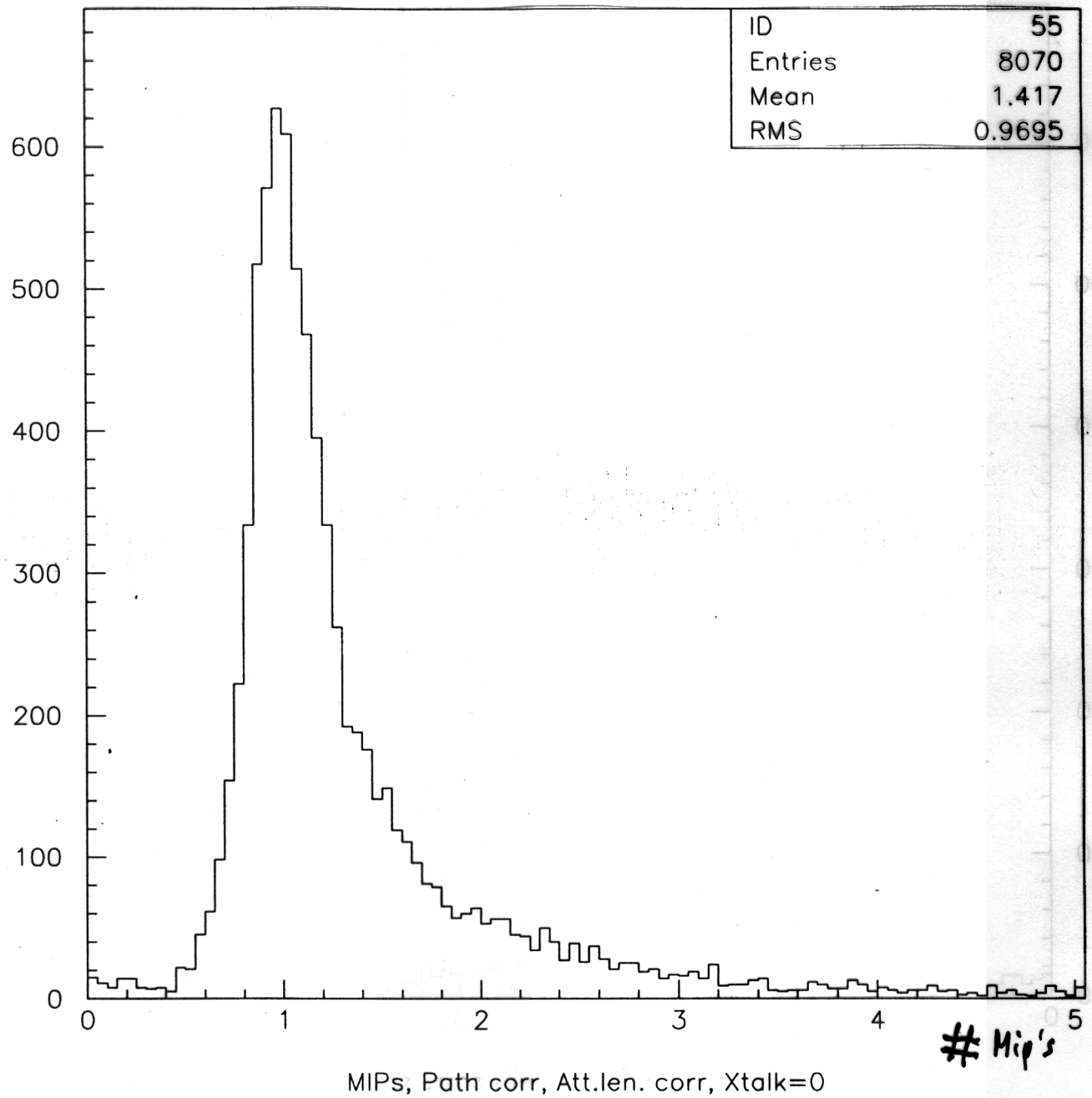
p_T of the tracks in M.B. events



- p_t very low ⇒ lot of spiralizing tracks

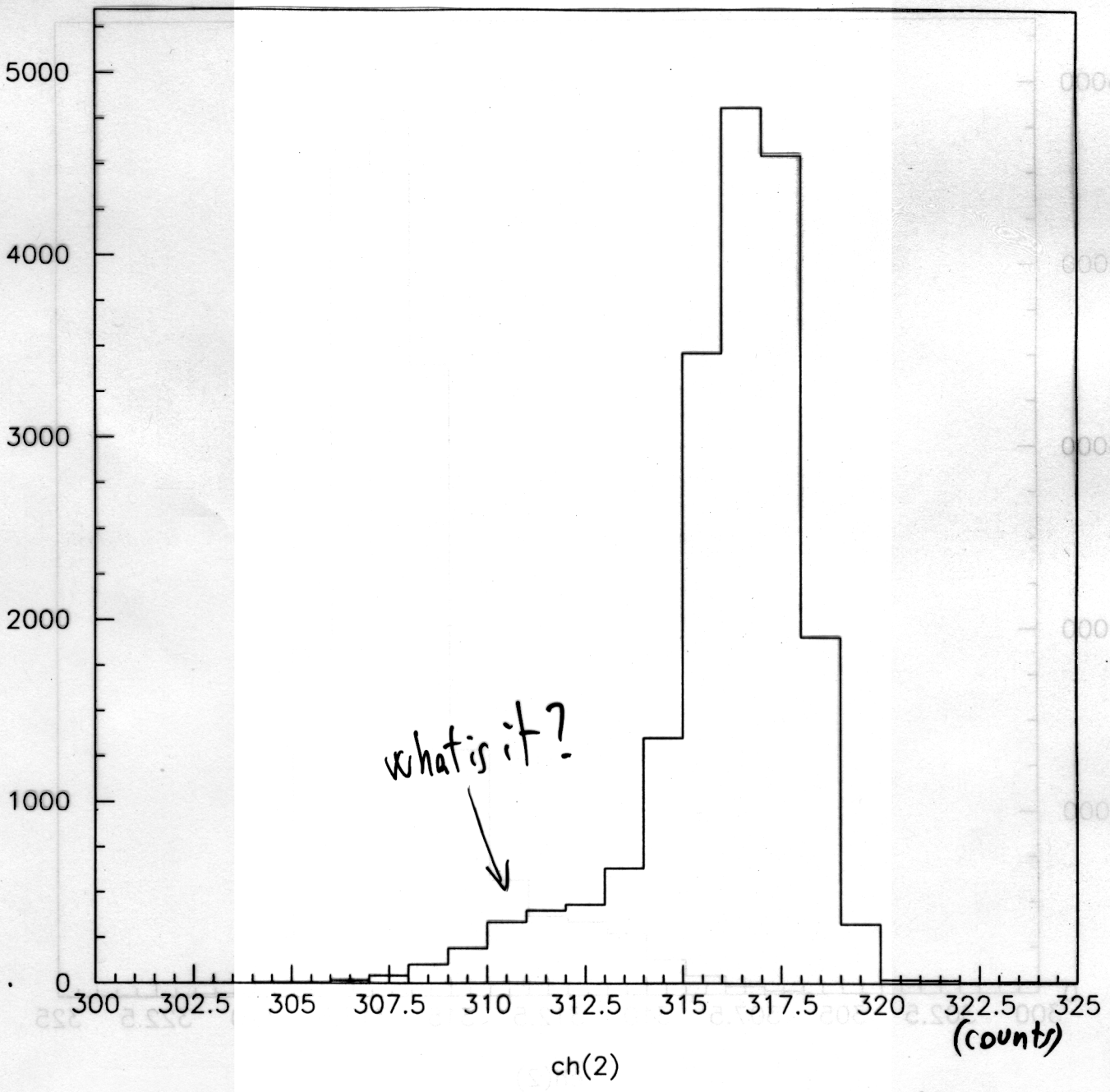

all tracks
$p_T > 400$ MeV
x 10
10000
8000
6000
4000
2000
0
1
1.5
2
2.5
3
3.5
4
4.5
5
trf

$$\sum_{TRK} \sum_{i}^{N_{PMT}} \frac{ADC_i - Ped_i}{R^{(4\,cm)}_{MIP\,i}} \cdot \frac{4\,cm}{X_{TRK}} \cdot e^{\frac{1}{\lambda} \pm \left(\frac{L}{2} - z\right)}$$



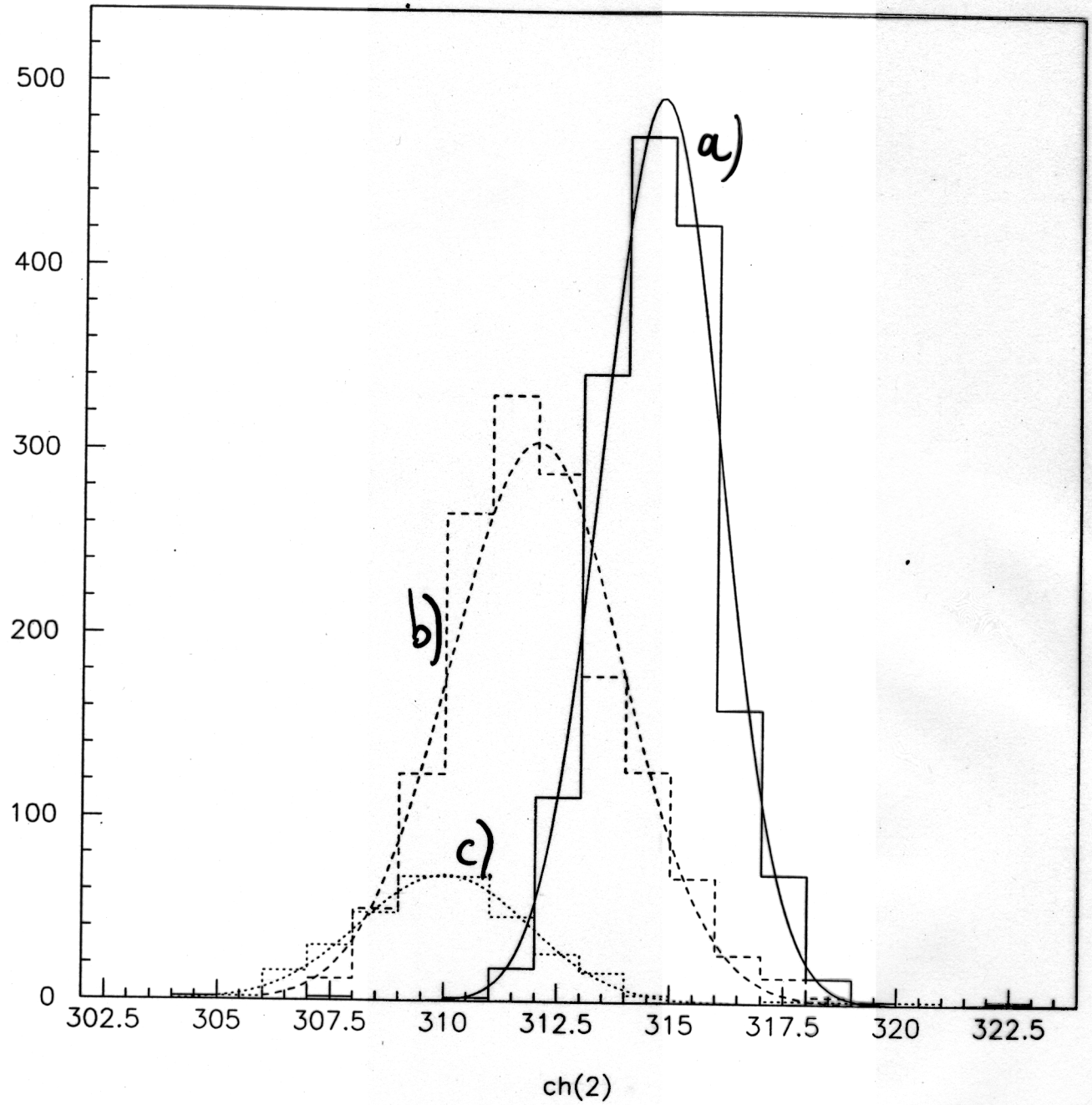
MIPs, Path corr, Att.len. corr, Xtalk=0

- Select 1 TRACK in the bars (and Type 1)
- correct for PATHLENGHT and ATT. LENGHT (<300>cm x all bars)
- normalized to the Response of each bar to a Mip
- Pedestal subtracted



• ADC spectra when the PMT has not been Hitted.

of PMT 2



- ADC spectra of tube 2 when: a) PMT 1 has an HIT
  (PMT 2 does not have a Hit) b) PMT 3 has an HIT
  c) PMT1 AND PMT3 have an HIT

to do:

- check alignement, track quality, COT efficiency.
- CONFRONT with "TofMatch" as crosscheck
- correct pedestal subtraction implementation

..... efficiency in M.B. events of Tof Matching.

- measure the NUMBER of equivalent MIP's trough a bar in those events.