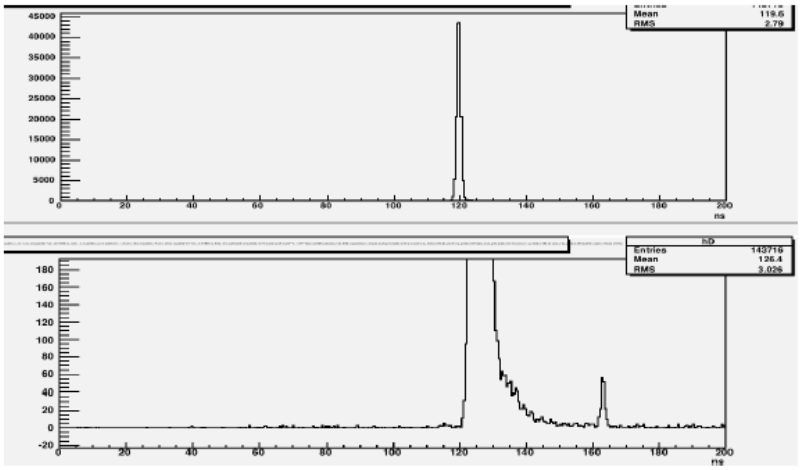
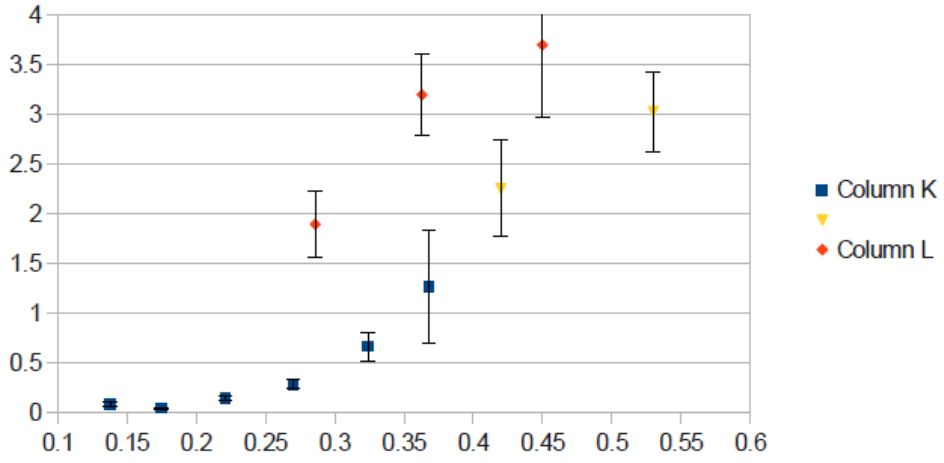
There are 3 kinemtical conditioned analyzed by Igor and all show a nice peak of (e,e'd). In the following the coinc time between the HRSs are shown (in the upper histograms time is corrected assuming the particle is proton and in the lower that it is deuteron

Coincidence time for 200 MeV/c:



Ration e,e'd/e,e'p as function of Pmiss:



X axis: missing momentum GeV/c. Y- axis: percents [%]

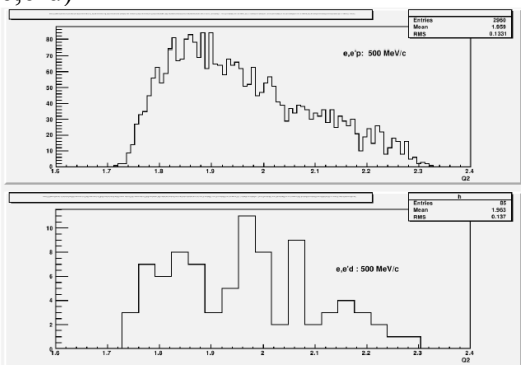
Blue: 200, red 350,yellow 500 pmiss kinematics

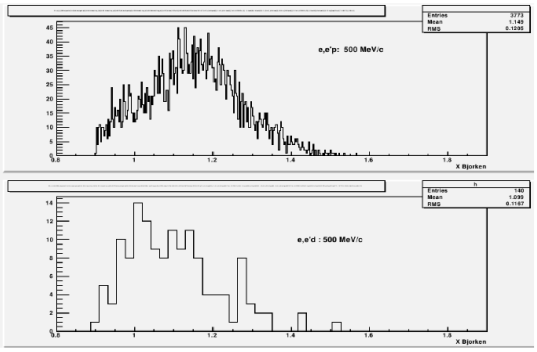
Doug,

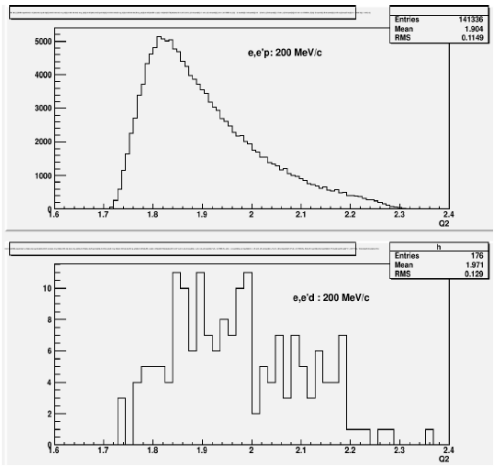
1. What cross section should be calculated (how many fold…)
2. Do we have a mceep option ready?
3. Why to calculate it do we have anything to compare with as was done in the NEIFKEF paper?

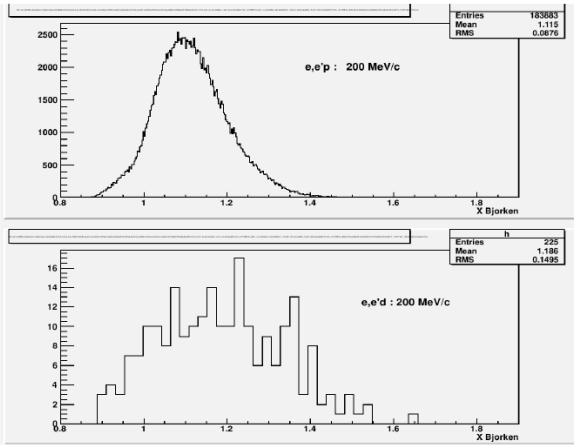
Everyone: do we see ‘jump’ at the Fermi level?
The Q2and x dependence of the (e,e’p) and the (e,e’d) are shown below

Left Q2, right x, top 500, bottom 200 MeV/c set ups. In each plot top (e,e’p) bottom (e,e’d)





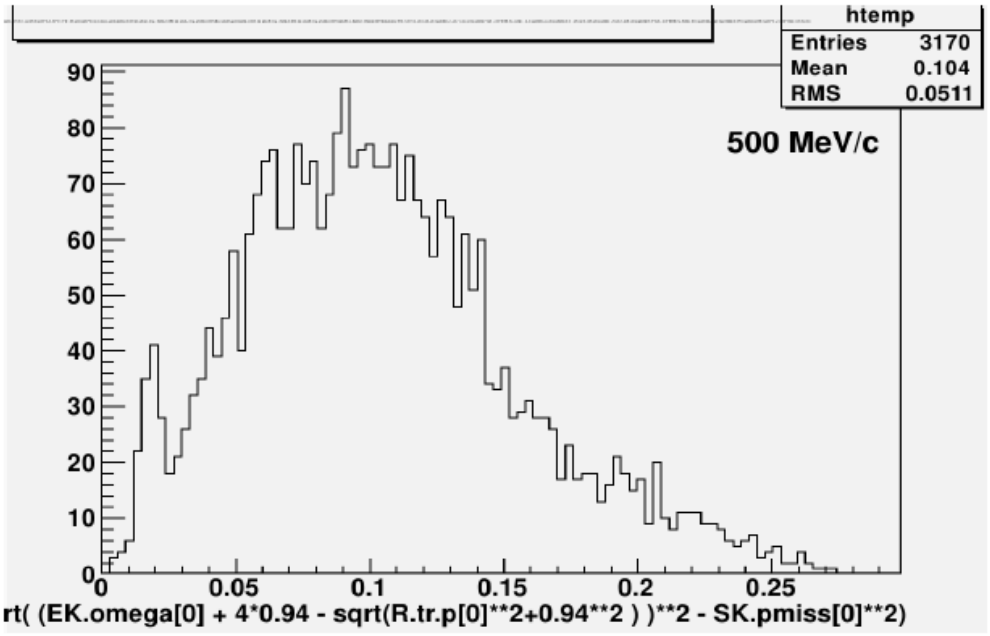




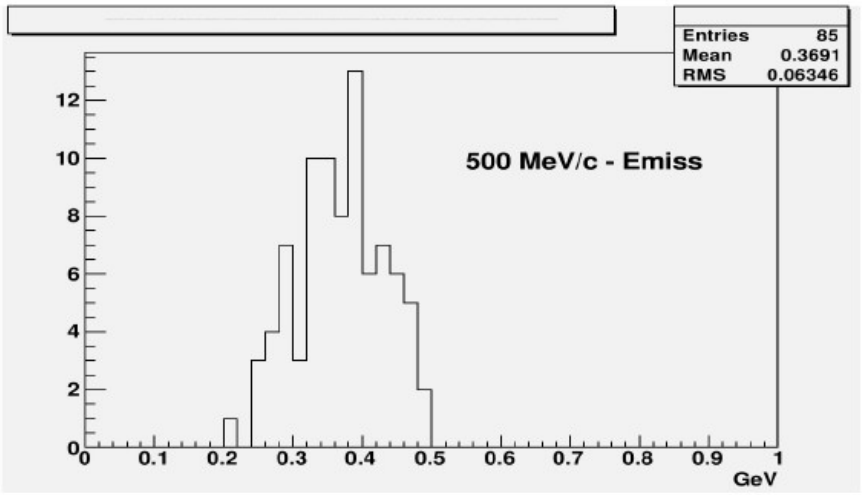
The following are Emiss plots for (e,e’p) and (e,e’d)
Emiss is the excitation energy of the recoil system (nnp) and (np) in the (e,ep) and (e,ed) cases
It defined as in Peter’s thesis:

$$E_m = \omega - T_{p/d} - T_{recoil\ system}$$

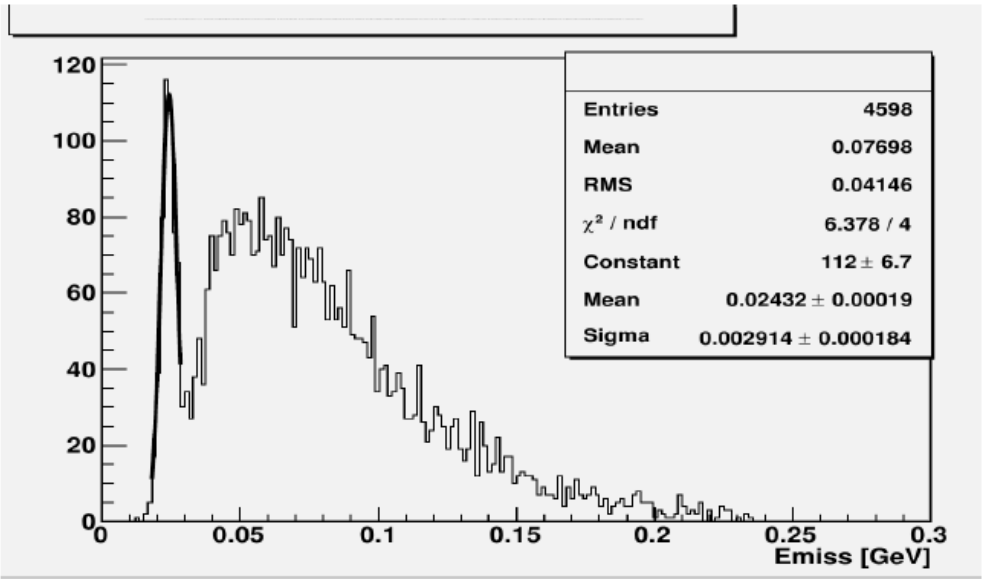
e,e'p:



Emiss: for e,e'd

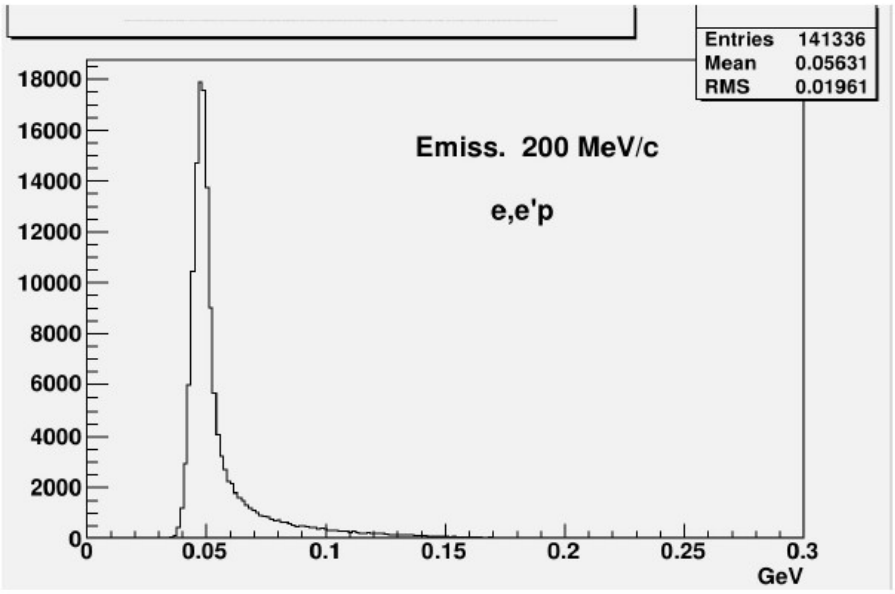


Emiss for e,e'p: 350 MeV/c

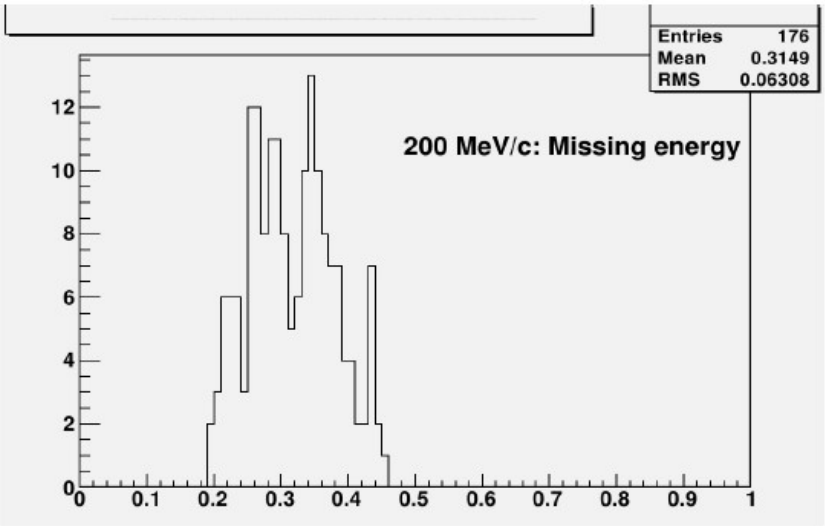


Missing the Emiss for (e,ed) at 350 MeV/c

Emiss:

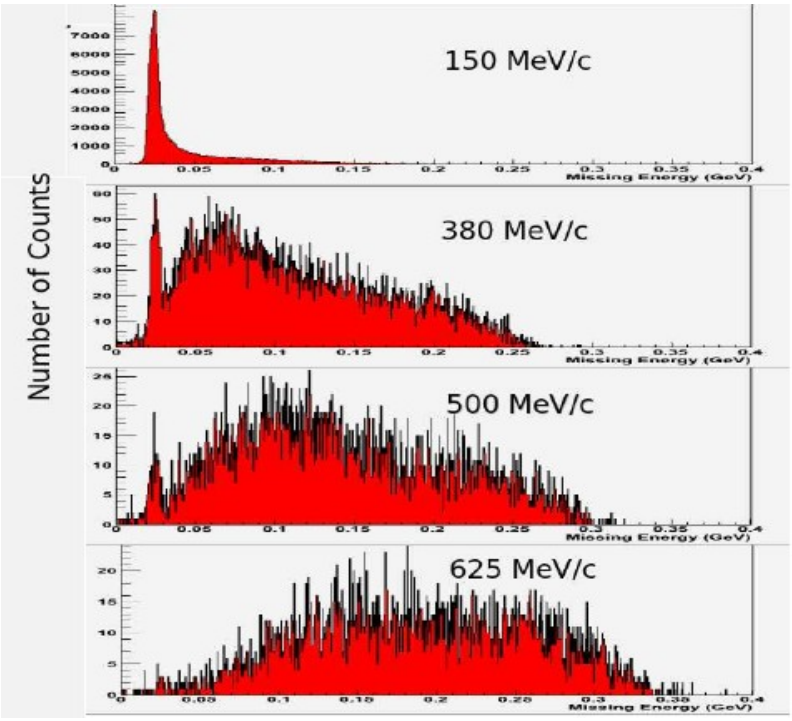


emiss for e,e'd



Clearly lower than 500 MeV/c but why so high compare to NIEKEF ? different deuterons production mechanism at our kinematics?

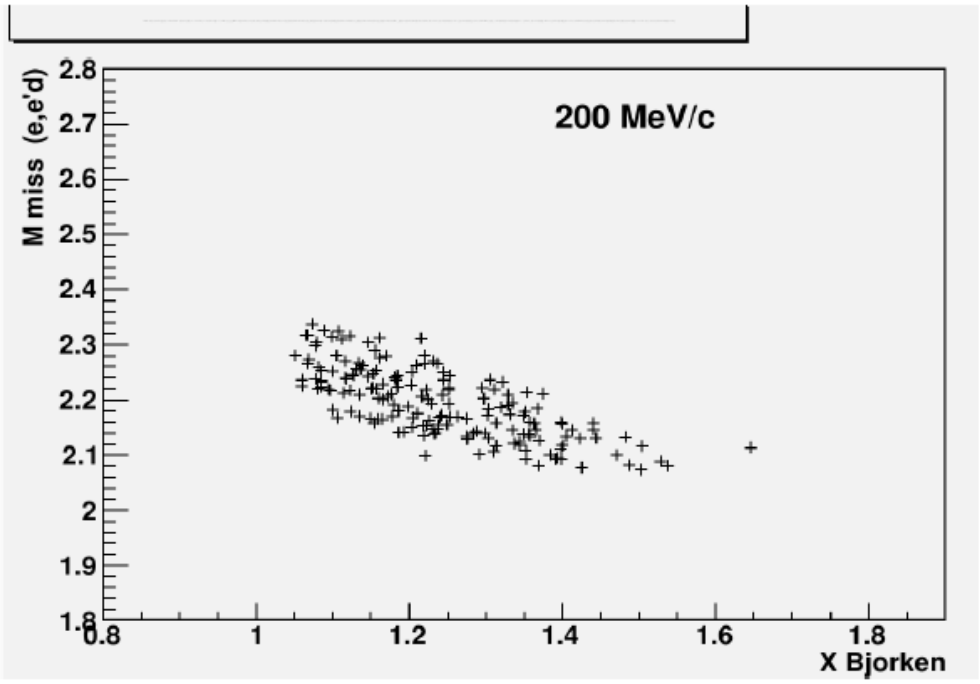
Presented emiss for e,e'p is similar to the one that was presented by E08 – 009 group:



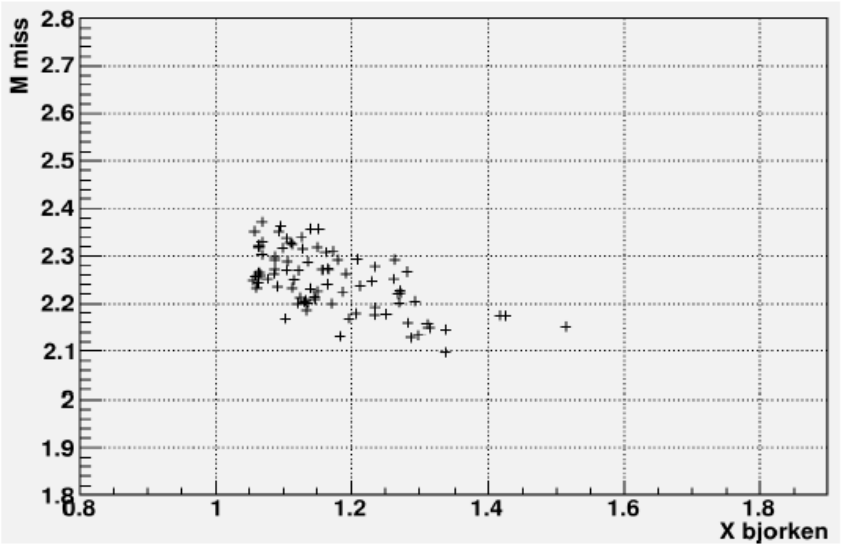
The missing mass are shown below vs x for 200 and 500 mev/c setups

$$M_{miss} = \sqrt{(E_m^2 - p_m^2)}$$

M miss vs X:

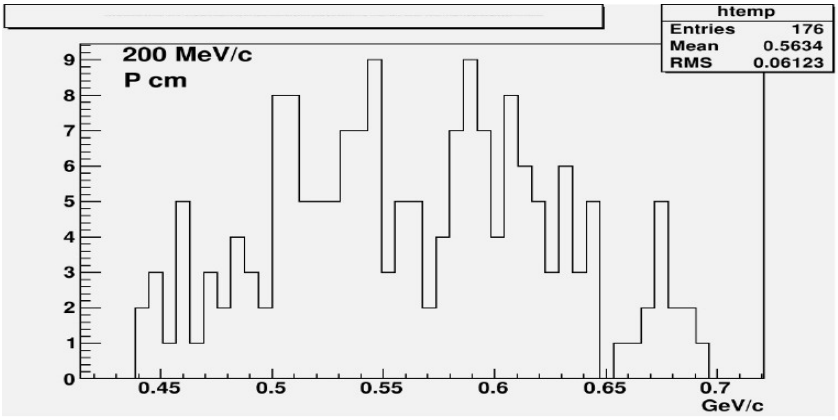


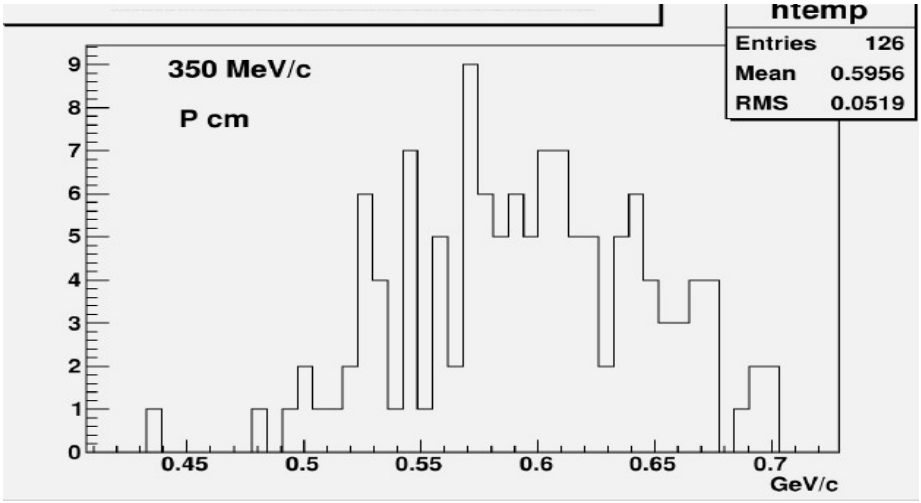
Missing mass vs X for e,e'd:

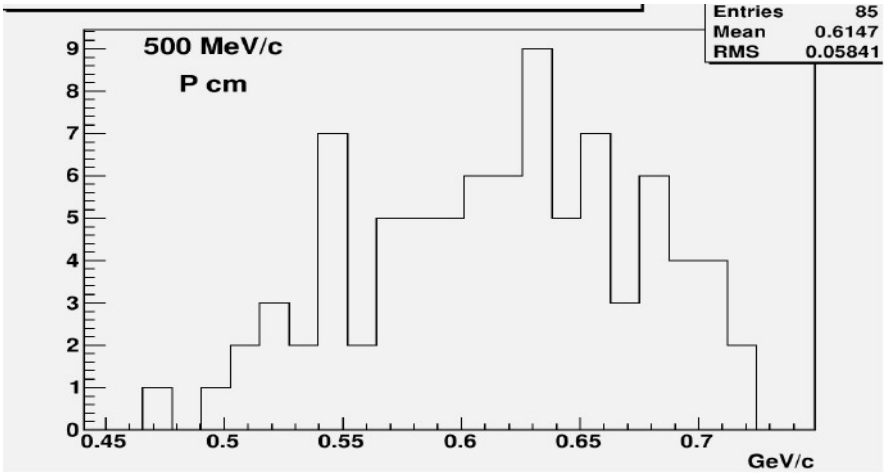


Assuming the recoil system is 2N below is the pcm dist for the pair calculated from Mmiss:

$$P_{cm}=\sqrt{((\frac{E_m}{2}+m_p)^2-m_p^2)}$$

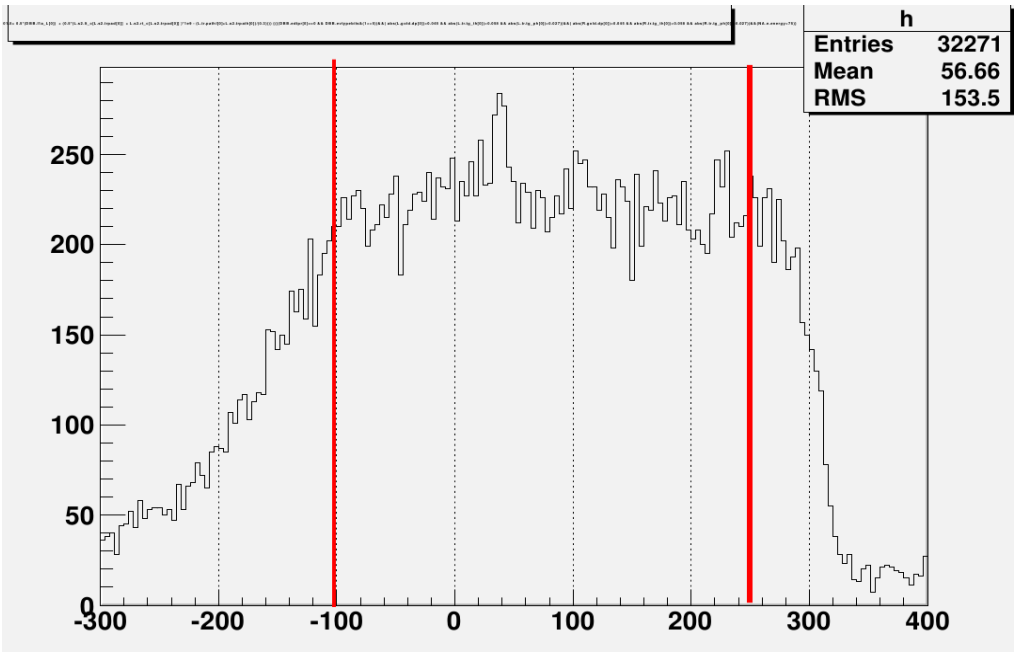




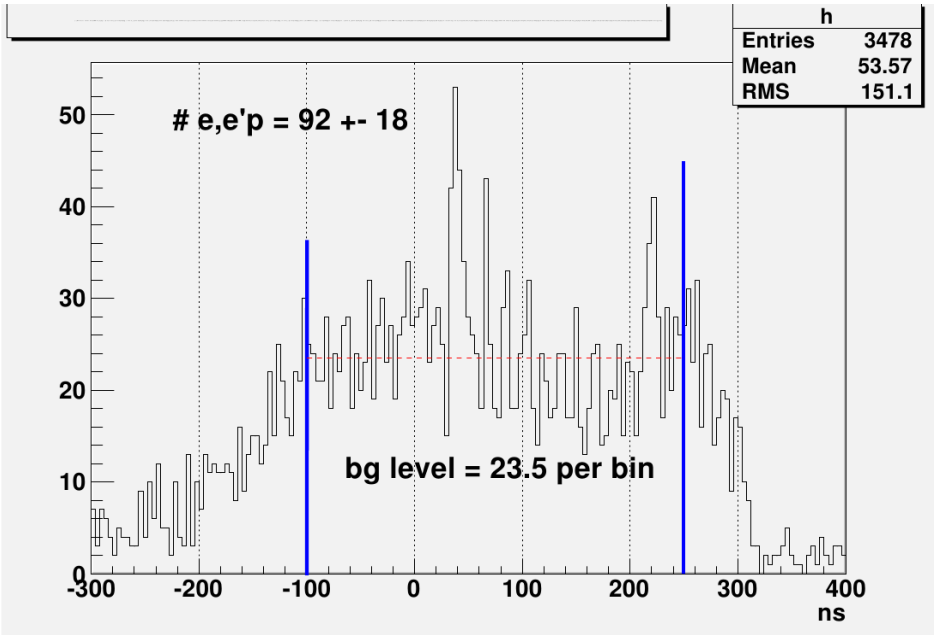


HAND:

BG range:
no cuts



applying the same range for the BG:



Additional BG estimation.
I took flat BG level based on whole range (no ADC cut) and calculated the “signal” (total – bg level) for different places in the TOF spectra.