Summary: 750 MeV/c

summary of cuts for the e,e'p:

1. L and R HRSs acceptance: Momentum ±4.5% Horizontal ±30 mr, Vertical ±60 mr.
2. Coincidence time: ±2.4 ns
3. Vertex: ±0.081 m
4. Vertex difference: ±0.032 m
5. X Bjorken: >1.05
6. Omega: < 0.97 [GeV]

Following figures represent the data for e,e'p channel with these cuts.

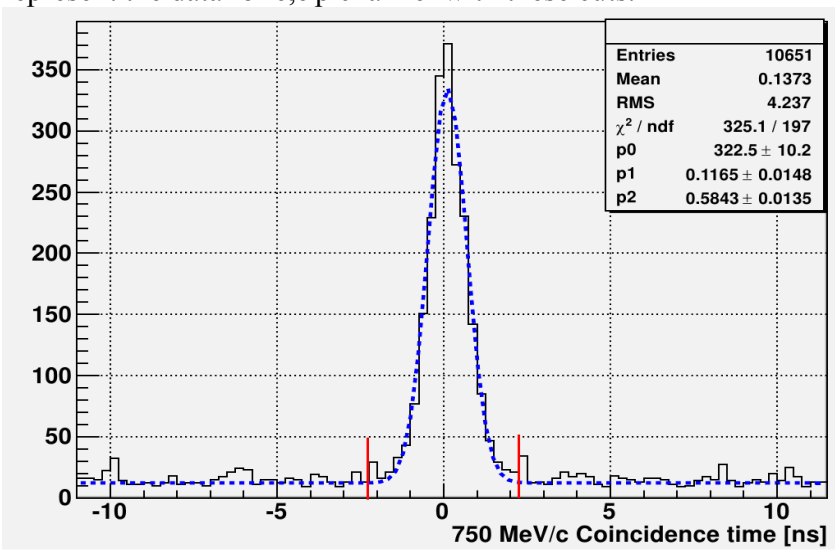

Fig 1: Coincidence time between two HRSs. Time resolution is $\sigma = 0.58\,ns$

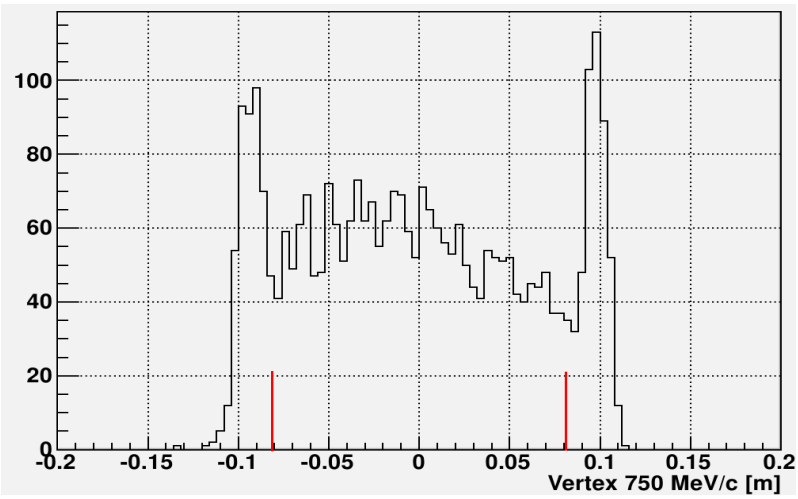

Fig 2: Vertex distribution based on Left HRS (20 cm target)

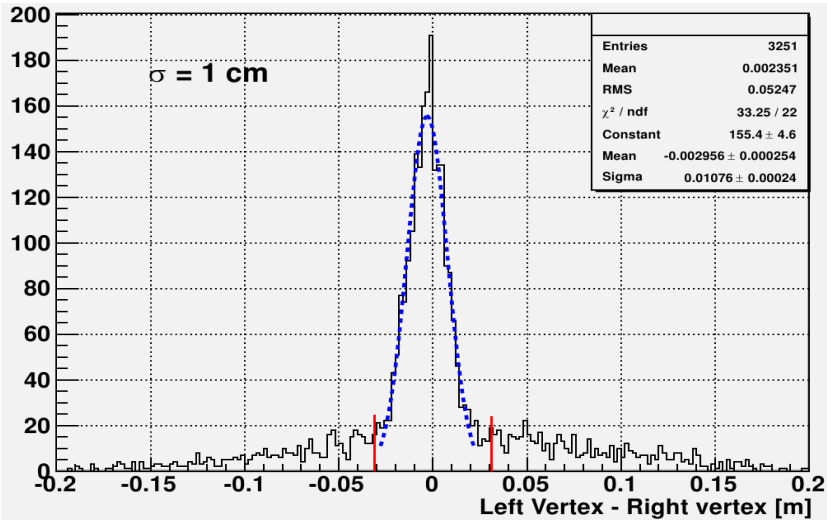

Fig 3: Vertex difference. Resolution: $\sigma = 1\,cm$

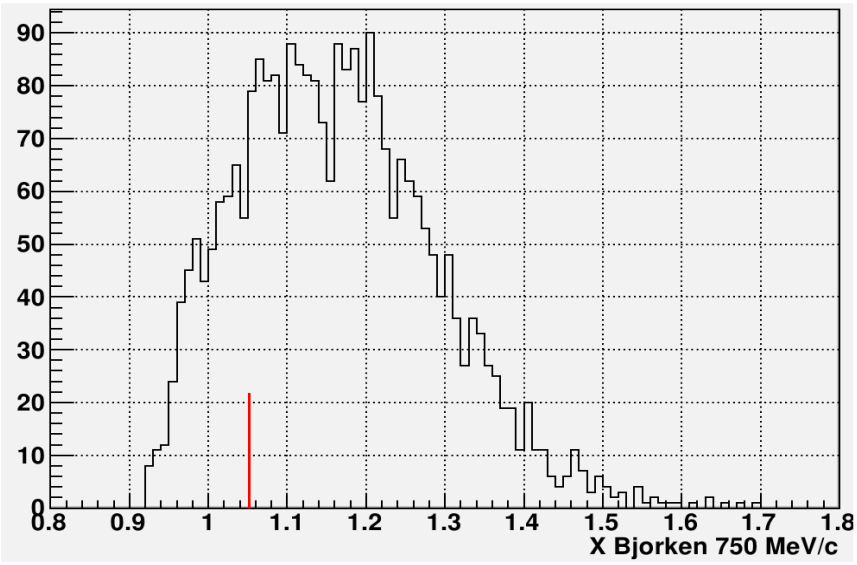

Fig 4: x Bjorken distribution

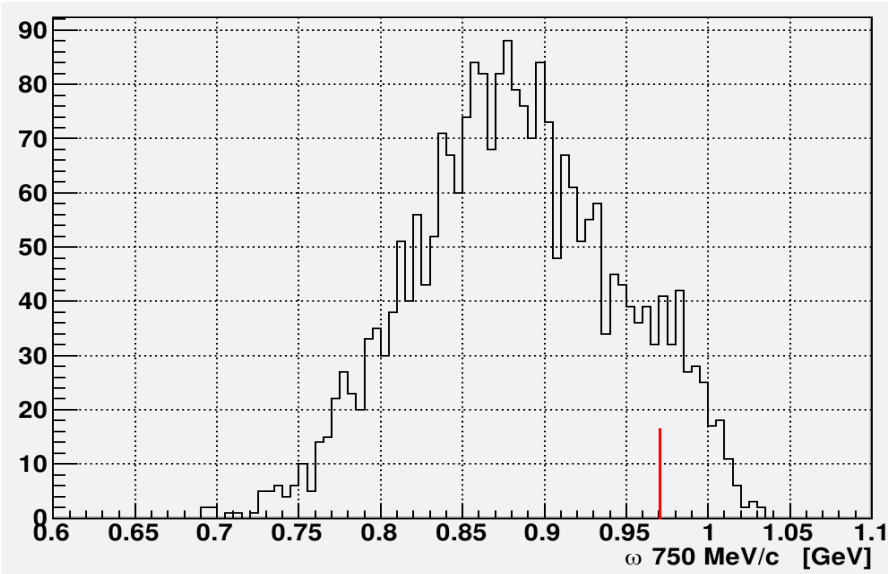

Fig 5: Omega distribution

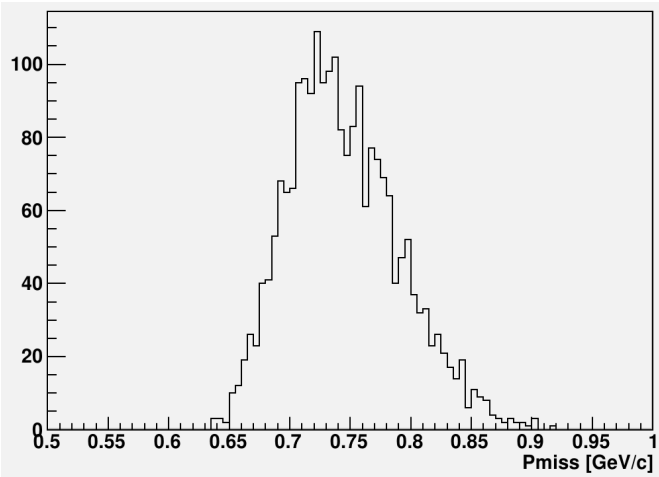

Fig 6: Pmiss distribution

Total number of (e,e'p) events = 2211 ± 47

e,e'pp

BigBite TOF:

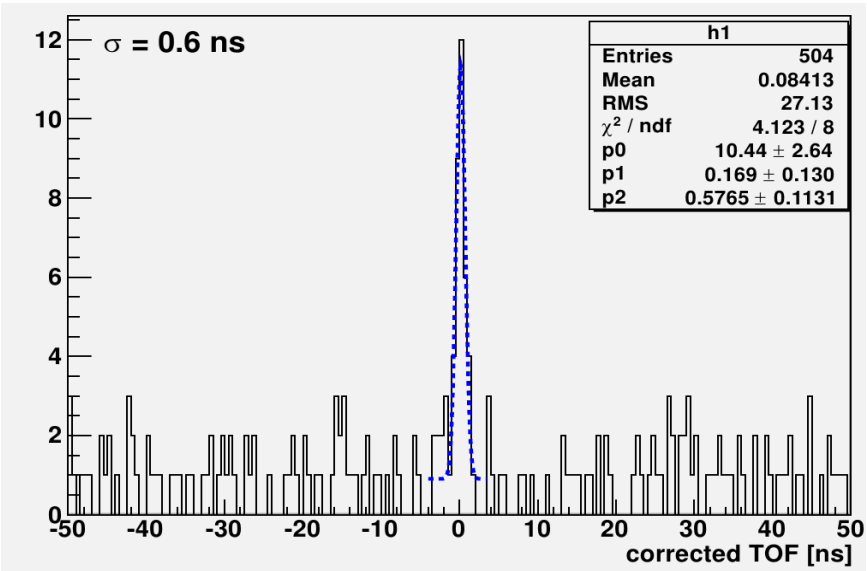

Fig 7: Corrected TOF [ns]

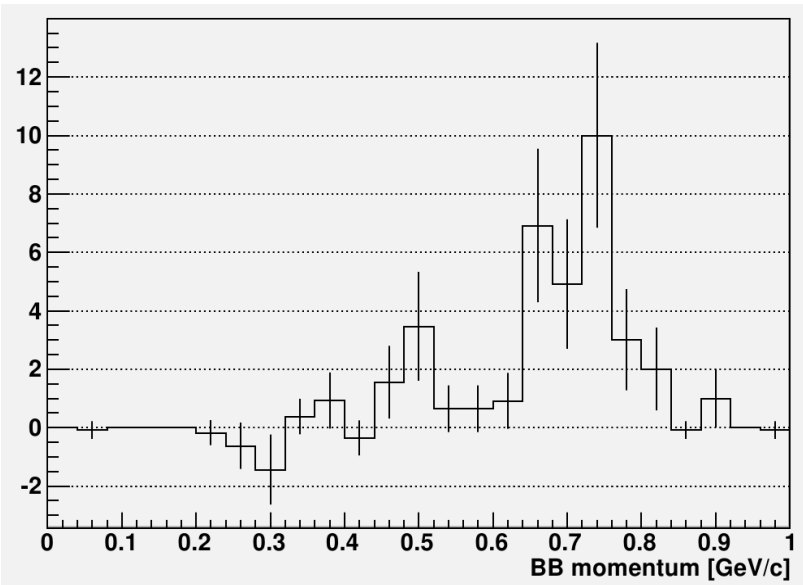

Fig 8: Momentum distribution for the detected protons in BigBite.

Number of (e,e'pp) events: 33.5 ± 6.5

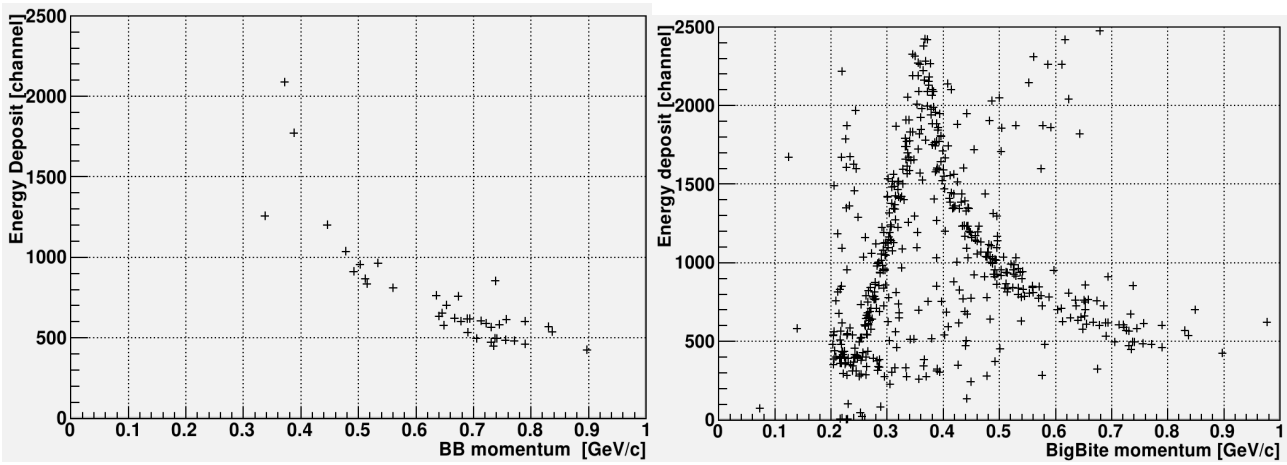

Fig 9: Energy deposit vs momentum. On the left histogram events that pass BB TOF cut.

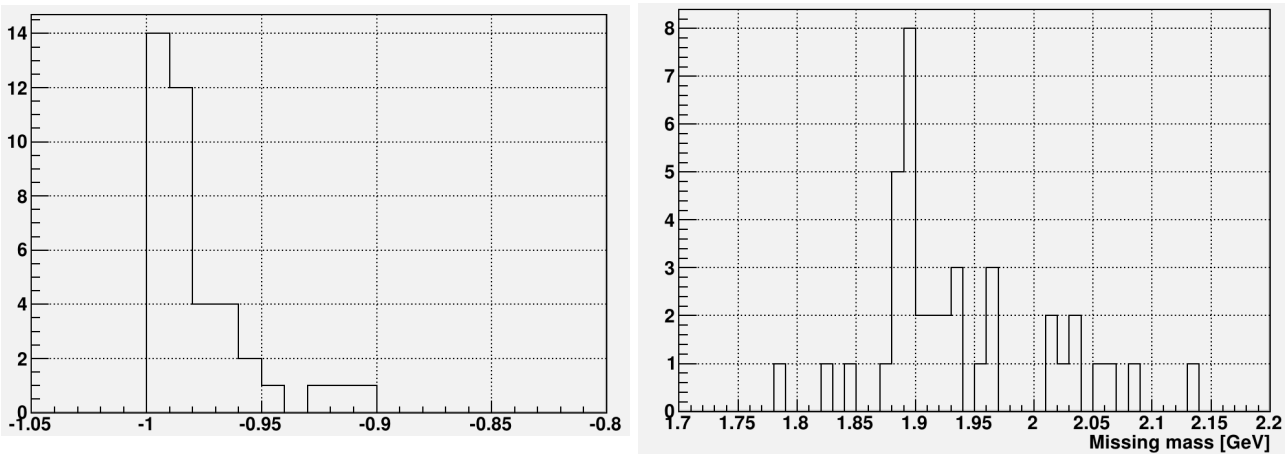

Fig 10: left- Angular correlation (BigBite), right- Missing mass distribution

<u>events (e,e'pn)</u>

HAND TOF:

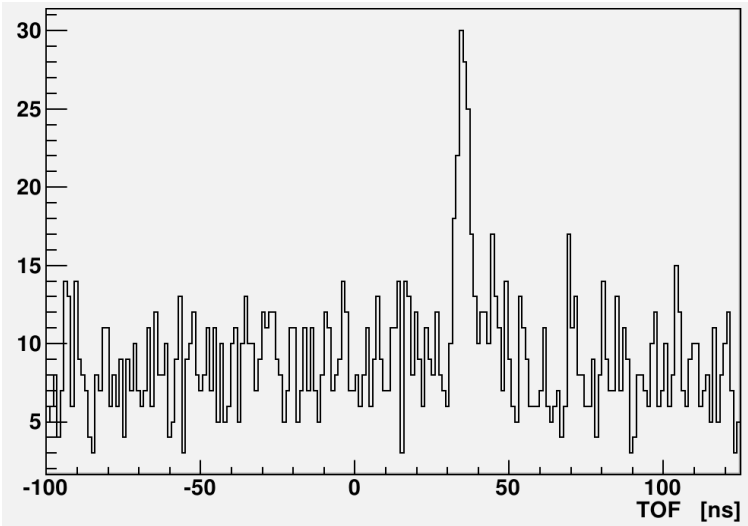

Fig 11: Neutron TOF

Number of e,e'pn event: 125 ± 19

Based on neutron TOF, momentum reconstructed:

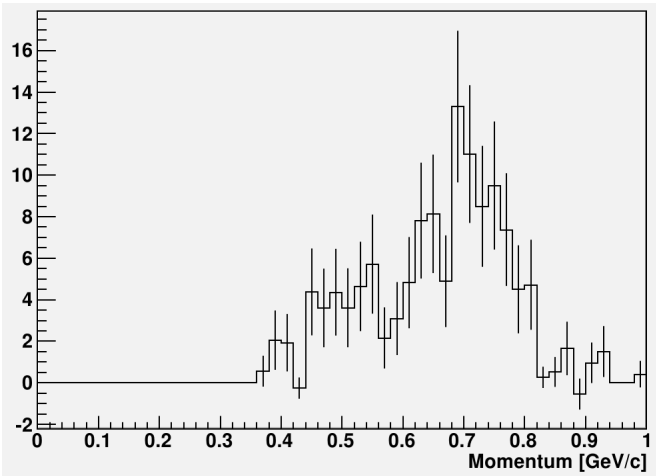

fig 12: HAND momentum distribution

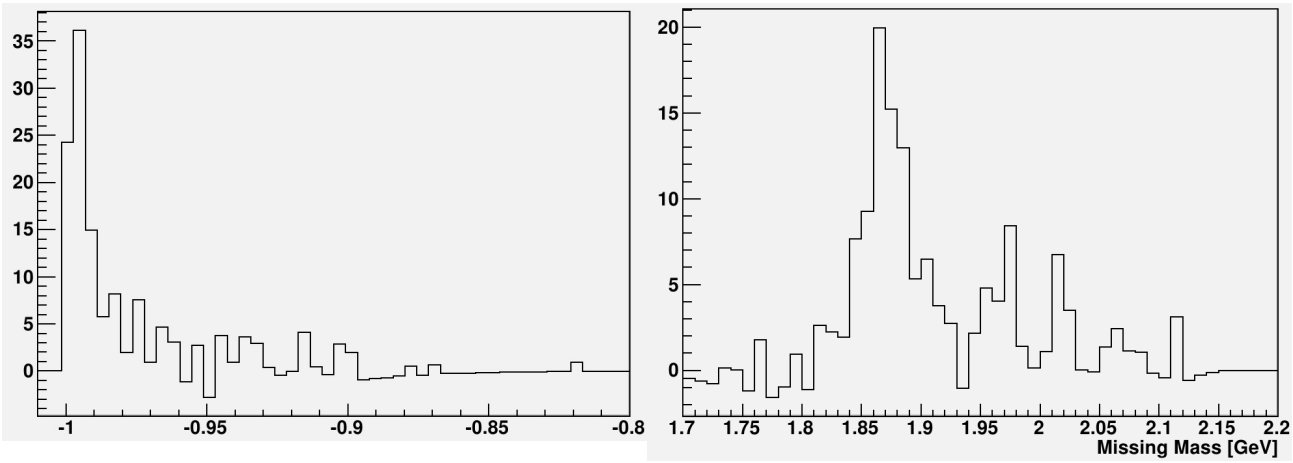

Fig 13: left – angular correlation (HAND), right – Missing mass distribution

<u>(e,e'pn) / (e,e'pp) Ratio</u>

e,e'pp = 33.5 ± 6.5
e,e'pn = 125 ± 19

Neutron detection efficiency: 40% ± 2%

Ratio = 9.3 ± 2.3

If we cut on the main peak in missing mass:

Missing mass < 1.94 GeV

BigBite: 25.3 ± 5.5
HAND: 85 ± 12

(e,e'pn) / (e,e'pp) Ratio = 8.4 ± 2.2

<u>E01 – 015 Experiment Result</u>: 8.1 ± 2.2
Momentum range: 400 – 625 MeV/c