

E02-013 Analysis Update

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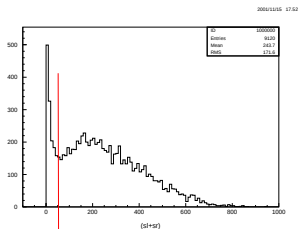
June 17, 2009

Monte Carlo

- ▶ Asked to look at QE yields from data
- ▶ Discovered misimplementation of NA trigger - fixed
- ▶ Rerunning MC, complete results forthcoming

Neutron detector response

for 2.58 GeV/c momentum



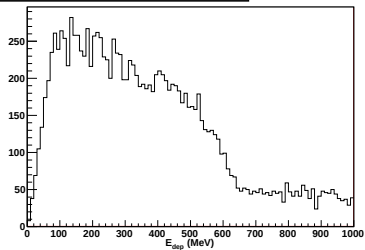
on-line threshold

Sum of signals from all PMTs, MeVee

Sum of Modules - Elastic Protons

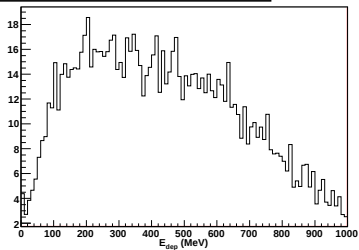
Data

Sum of Summing Modules, Kin 4 H₂, Data



MC

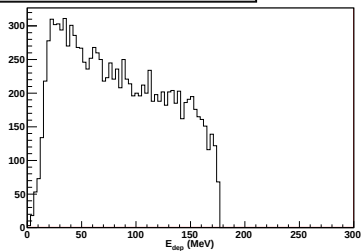
Sum of Summing Modules, Kin 4 H₂, Monte Carlo



Maximum Module - Elastic Protons

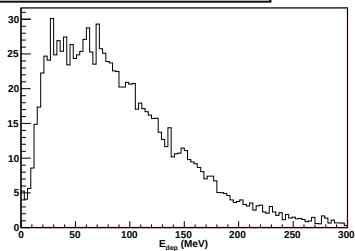
Data

Maximum Summing Module, Kin 4 H₂, Data



MC

Maximum Summing Module, Kin 4 H₂, Monte Carlo



- ▶ Looking at effects of position offsets on tracking results
- ▶ Looking at Kin 4, H_2

94610 event comparisons

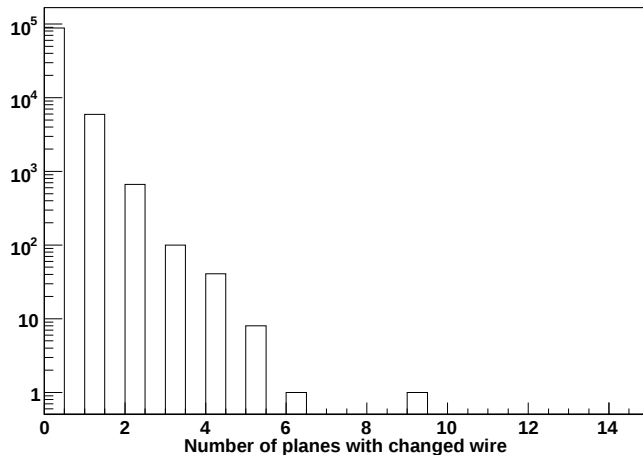
6752 tracks where track flip at least one wire

15 tracks in earlier replay but not later

25 tracks in later replay but not earlier

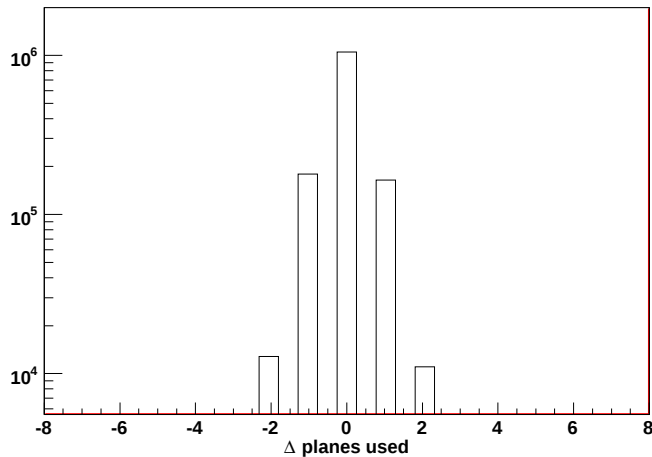
Number of Planes with Wires Swapped

Number of Planes w Wire Swap

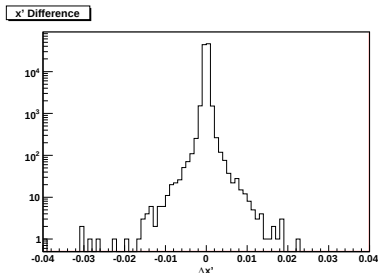
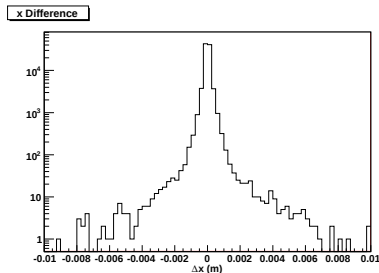


Change in Number of Planes used

Change in N planes used



Tracking results changes



$$\delta p \approx \left| \frac{c}{\theta^2} \right| \delta \theta \approx \frac{p \delta x'}{\theta} \quad (1)$$

for $\delta x' = 0.005$, $\delta p \approx 2 \text{ MeV}$

To Do

- ▶ Look at new MC results when finished
- ▶ Close to getting Kin 2 numbers out
- ▶ Continue tracking/optics studies
- ▶ Rework optics