

BigBite Analysis

5.89 GeV Tracking Performance, 5.89 GeV $S=0$ Cut History and Raw Asym.

Matthew Posik

¹Temple University
Philadelphia, PA 19122

01/12/2012

Outline

1 5.89 GeV Analysis

2 What's Next

In-Plane Angle

Cut ± 5 mm from z-vertex center

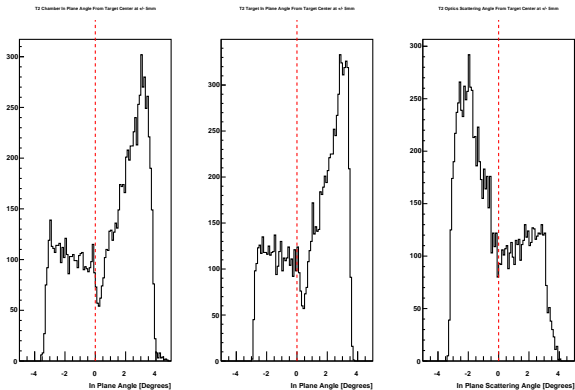


Figure: The left most plot shows the in-plane angle at the first wire chamber. The middle plot shows the in-plane angle at the target. The right most plot shows in-plane optics angle minus 45 degrees. There is a slight shift in the in-plane angle coming from tracking.

5.89 GeV Tracking Performance

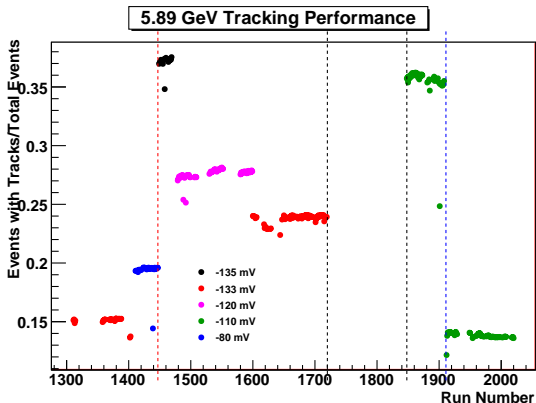


Figure: Tracking performance for 5.89 GeV data set. Different colors represent different shower thresholds. Red dashed line represents the fixing of the shower summing mod. The Black dashed lines show the SSA run period. The dashed blue line shows when the pre-shower was added into the main trigger.

5.89 GeV S=0 Cut History: Basic Cuts

Cut Performance Over Five-Pass Dataset, S=0

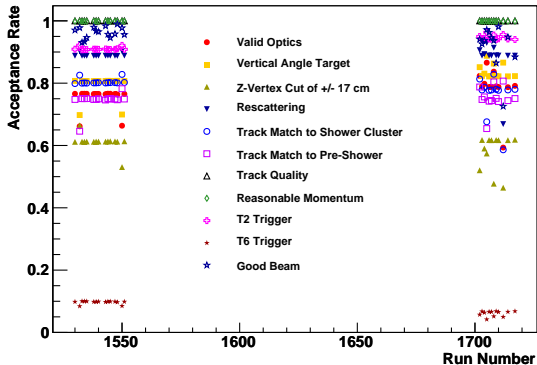


Figure: 5.89 GeV S=0 track passing rates with various cuts applied.

5.89 GeV S=0 Cut History: PID 1 Cuts

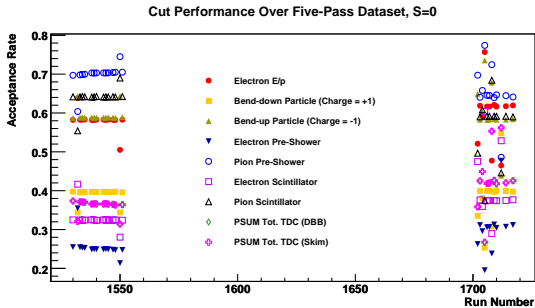


Figure: 5.89 GeV S=0 track passing rates with various cuts applied.

5.89 GeV S=0 Cut History: PID 2 Cuts

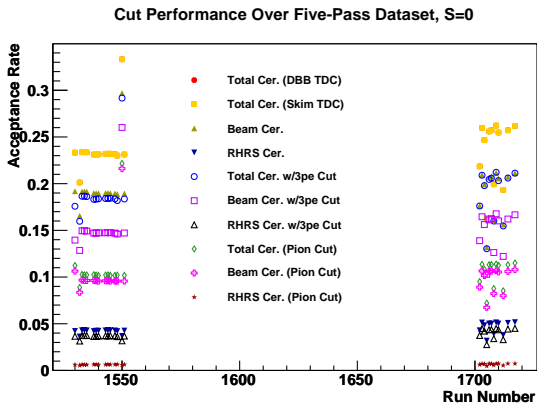


Figure: 5.89 GeV S=0 track passing rates with various cuts applied.

5.89 GeV S=0 Raw Asymmetry

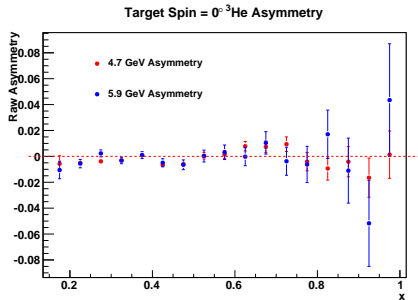


Figure: Full range

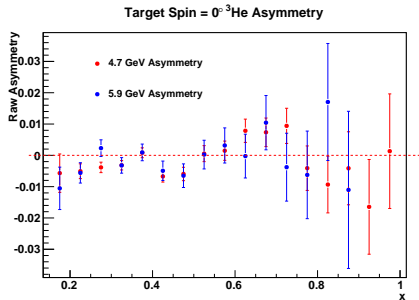


Figure: Zoomed

What's Next

- Look more into in-plane angle shift
- Get π/e ratio
- Look at π contamination in x bins
- Continue 5.89 GeV asymmetries