

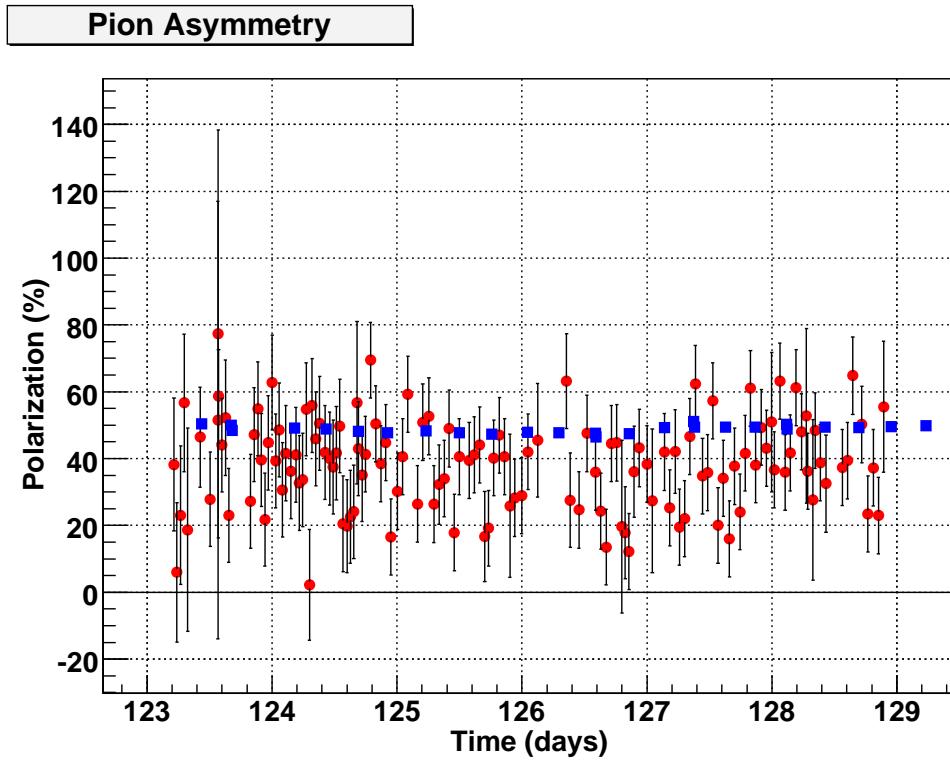
# Pion Asymmetry Analysis

Aidan M. Kelleher  
The College of William & Mary

October 4, 2007

| Variable     | Cut                | Reason              |
|--------------|--------------------|---------------------|
| B.ts.ps.e    | $100 < x < 400$    | Use BB preshower    |
| B.tr.vz      | $-0.18 < x < 0.18$ | Use BB tracking to  |
| Ndata.D.bit2 | true               | Select T2s (BB sin- |
| D.ctimeL1A   | $2690 < x < 2700$  | Select out of time  |

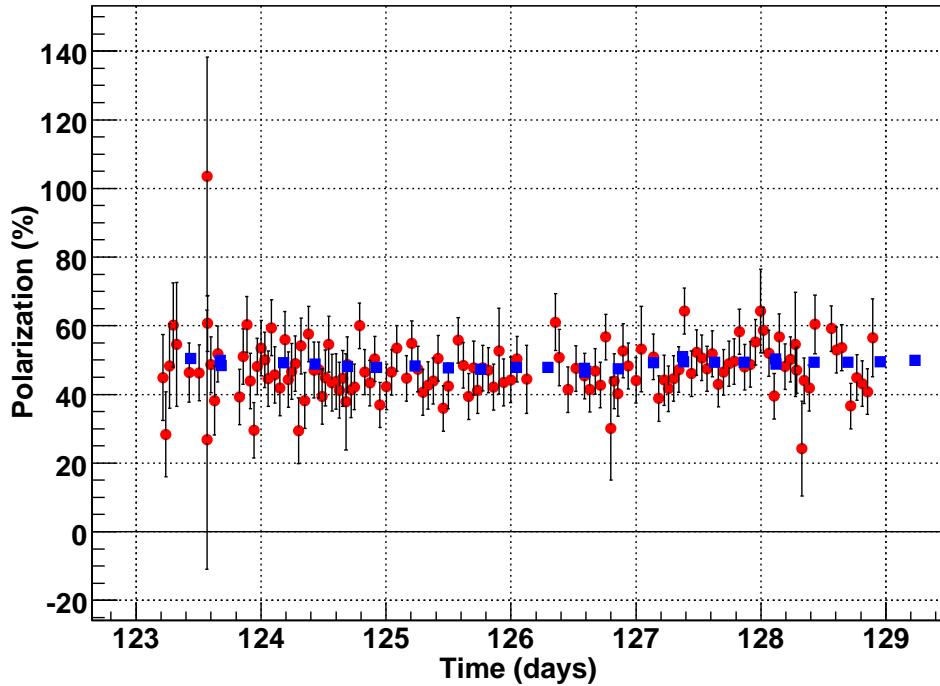
The cuts were used to select Big Bite singles events or mis-identified coincidence events that were identified as pions originating from within the target.



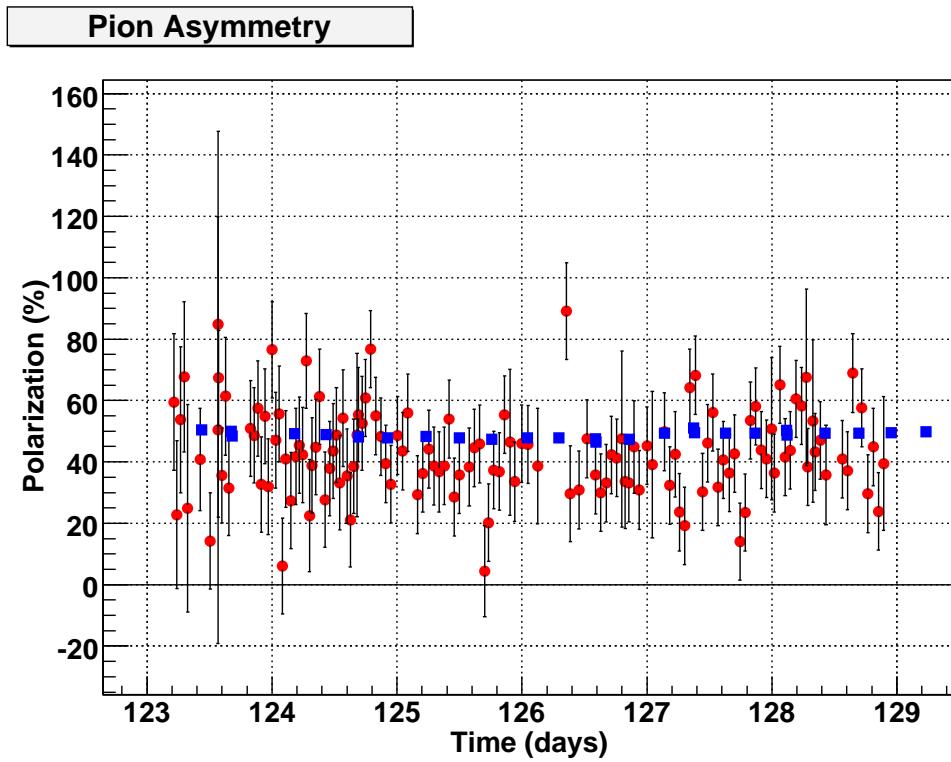
**Pion Asymmetry.** The asymmetry from the cleanest pion sample, target polarization measurements (blue squares) have systematic uncertainty included.

As seen Sept. 21

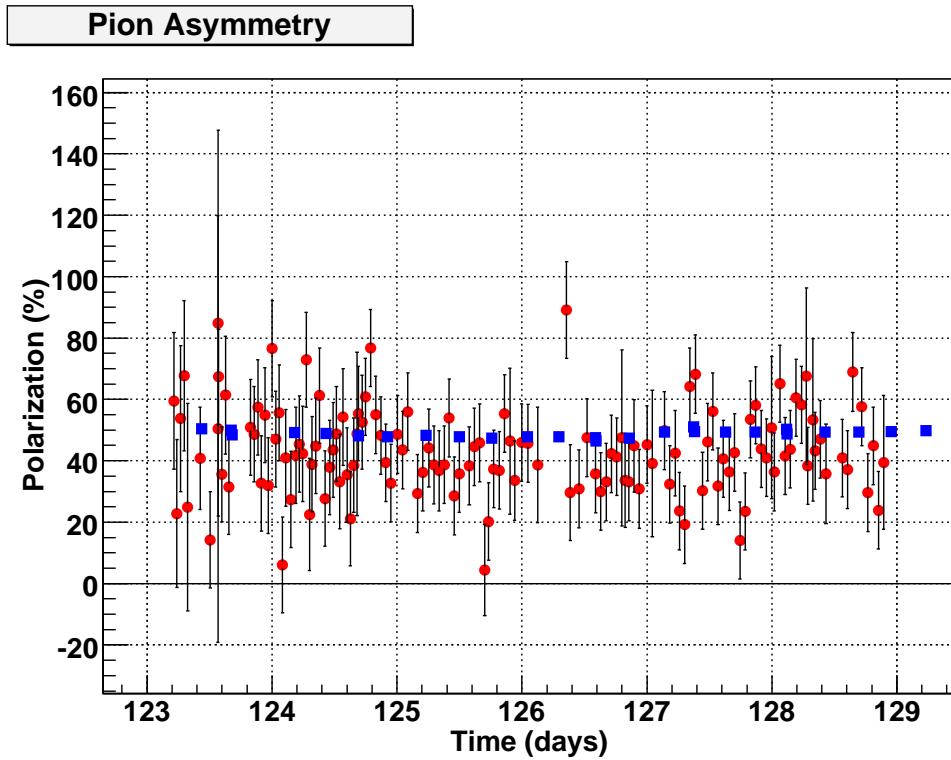
### Pion Asymmetry



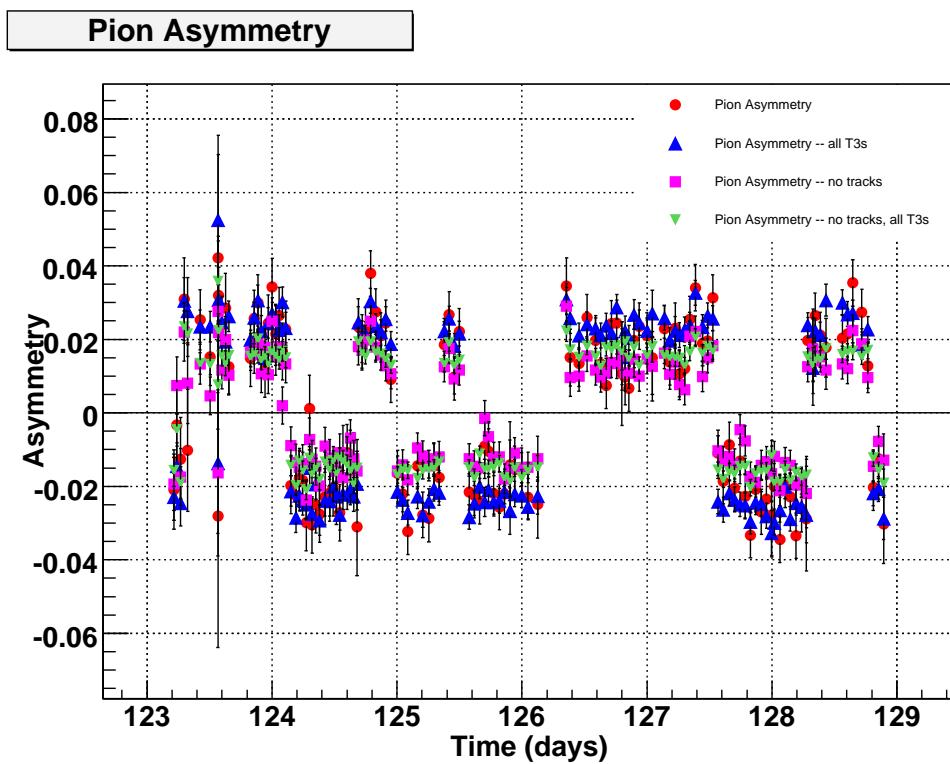
**Pion Asymmetry – Coincidence.** The cut restricting coincidence triggers to those without meaningful timing is relaxed to increase the sample size.



**Pion Asymmetry – No Tracking.** Tracking was not required for these events.



**Pion Asymmetry – No Timing.** Tracking was not required for these events, which included all coincidence triggers.



**Pion Asymmetry Cut Study.** Different samples are plotted together.