

CRT Runs from Week 1

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November, 2019

Week 1 at a Glance

Week 1 Statistics

- Week 1: 35k raw data files each with 31 events
- Total Number of Events: 1.085 million (Only 700k processed so far)

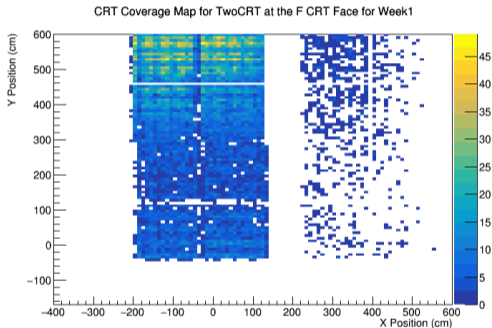
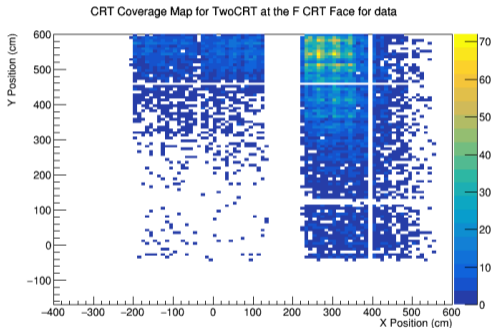
What I Have Looked At So Far

- 8k files (250k events)
- 26k CRT tagged tracks (10% event rate)
- Large amount of CTB noise

We are going to compare this with a series of beam runs (20k events from series of runs in low 5800s)

Coverage Map on the CRT

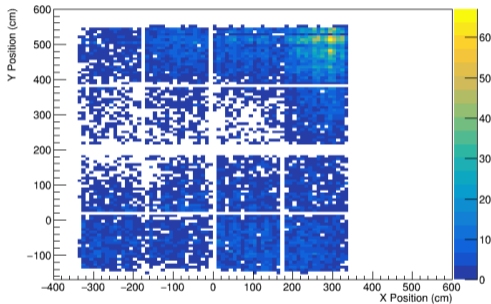
Data is beam and Week1 is well Week 1



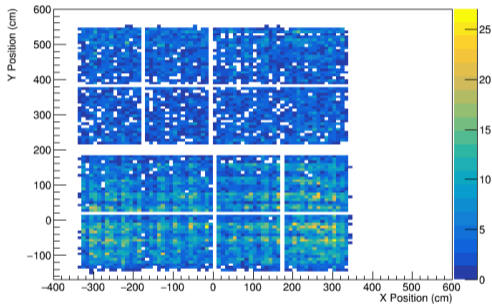
CRT hits on US for Matched Tracks

Coverage Map on the CRT

CRT Coverage Map for TwoCRT at the B CRT Face for data

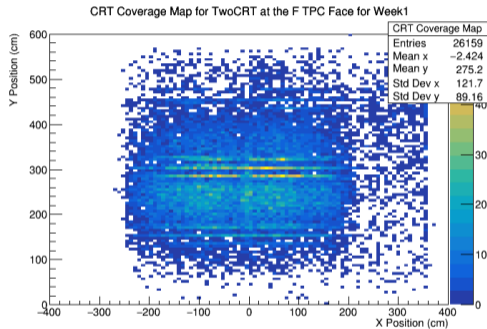
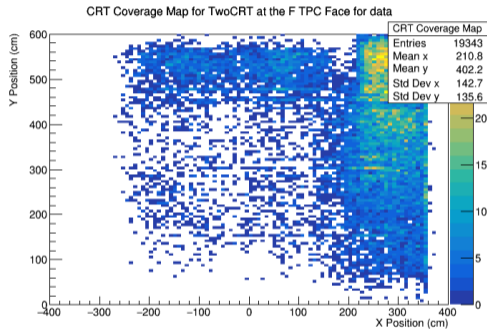


CRT Coverage Map for TwoCRT at the B CRT Face for Week1



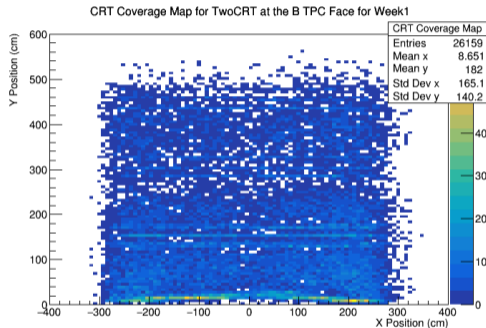
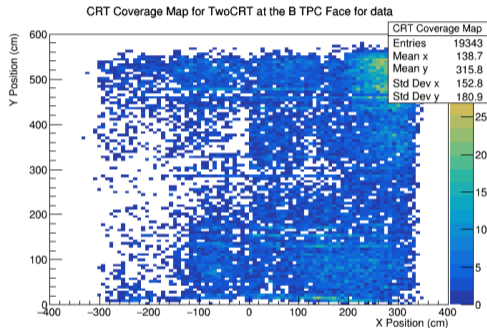
CRT hits on DS for Matched Tracks

Coverage Map on the TPC Faces



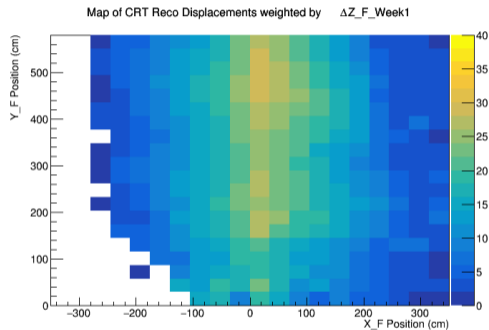
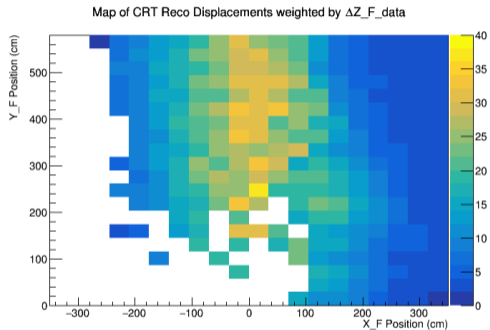
TPC coverage on US face from CRT matched tracks.

Coverage Map on the TPC Faces



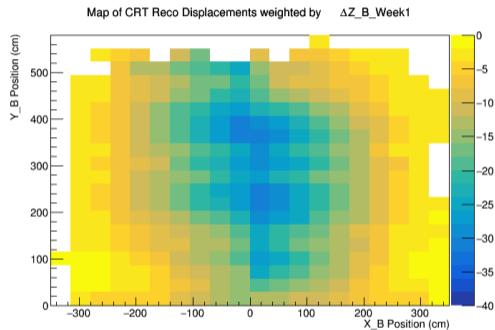
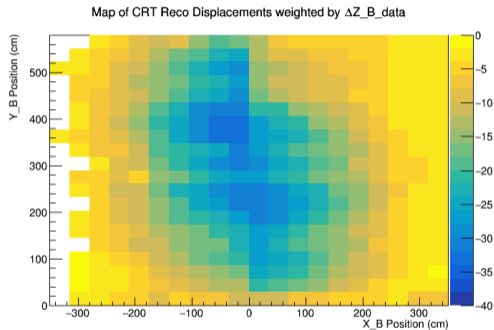
TPC coverage on DS face from CRT matched tracks.

SCE Maps in Z from T0-Tagging



SCE Map taking $\Delta Z = Z_{track\ endpoint} - Z_{TPC\ face}$ on US TPC Face

SCE Maps in Z from T0-Tagging



SCE Map taking $\Delta Z = Z_{track\ endpoint} - Z_{TPC\ face}$ on DS TPC Face

Lessons Learned

Goal of Runs: Cover BR as much as possible ☺

- Delayed US BL CRT with a two tick delay (Too high switched to 1 tick for Week 3 runs)
- We likely need to move the CRT to get full coverage BR although this is expected as CRTs on both faces end around 200 cm into BR drift.

I am currently working on what all of these mean for electron lifetime measurements.

Moving Forward

- Currently working on electron lifetime measurements.
- Analyze HV data being taken and add Week 3 data.
- Add dx and dy measurements of trackpoints, what I like to think of as using the CRT as a “laser” track. (This analysis is preliminary even on beam runs)

Thanks to everyone who contributed, specifically Jon who helped immensely with CTB settings.