CDC → BCAL Workflow
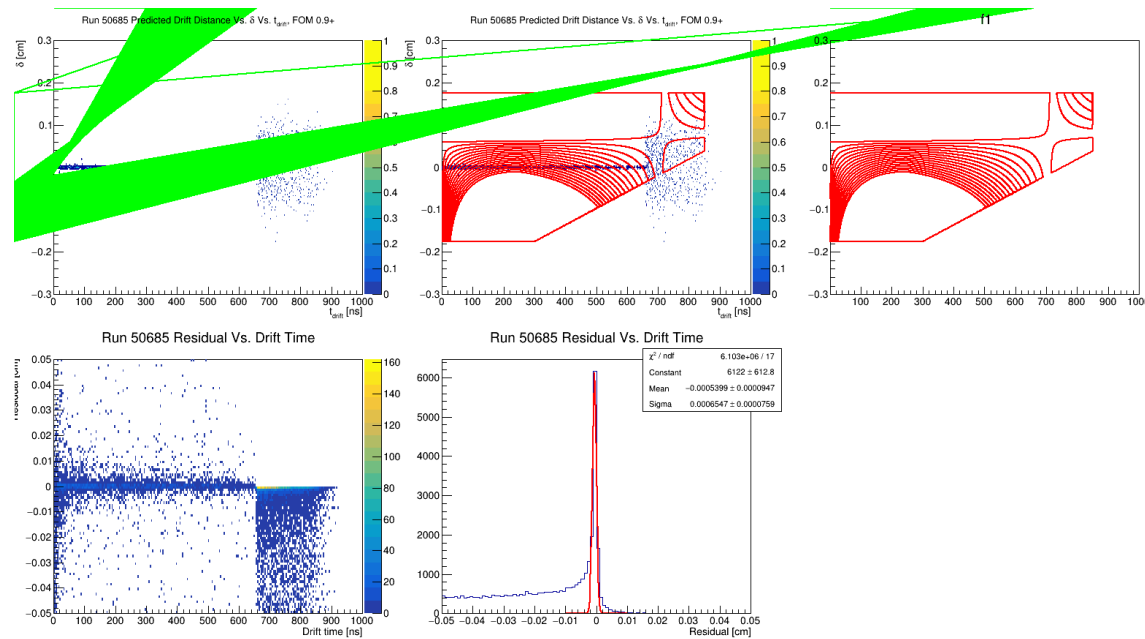
- Sean: try setting all CDC drift parameters to 0?
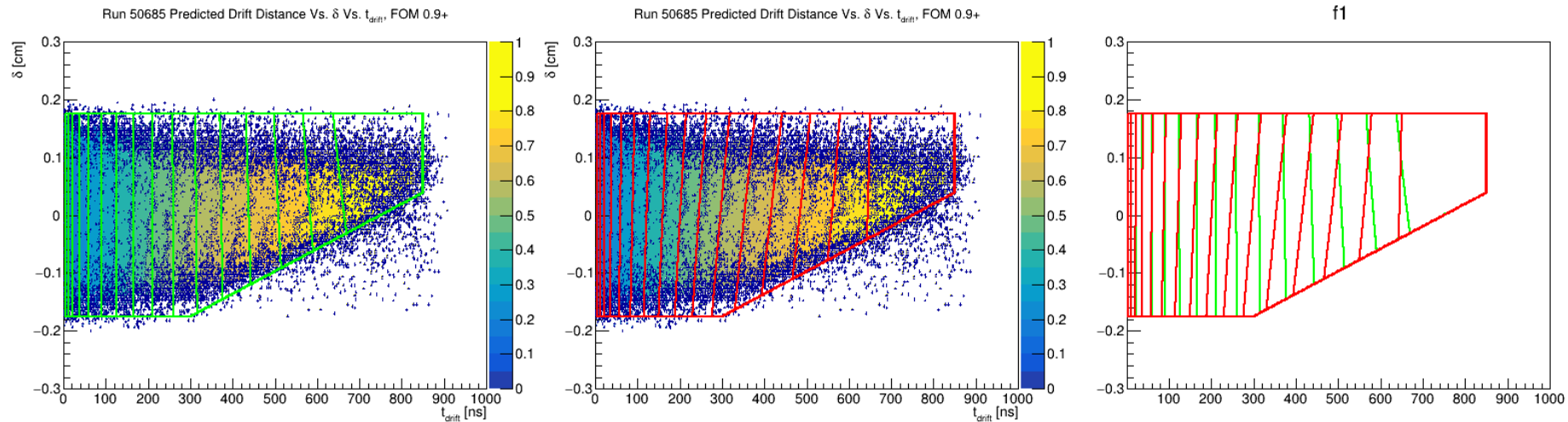
CDC → BCAL Workflow
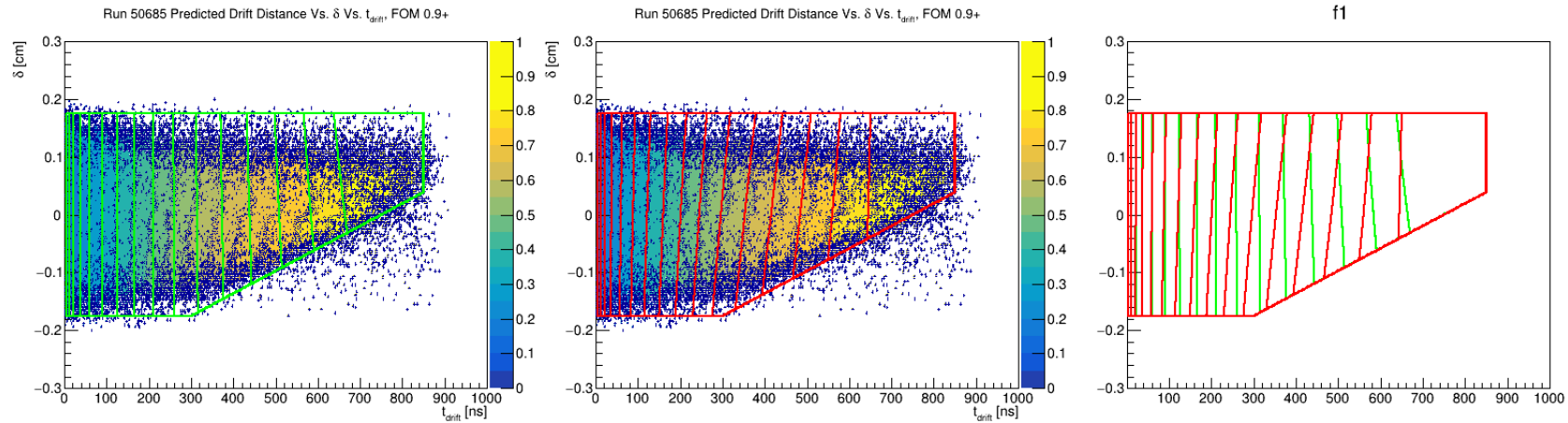
/CDC/drift_parameters to try

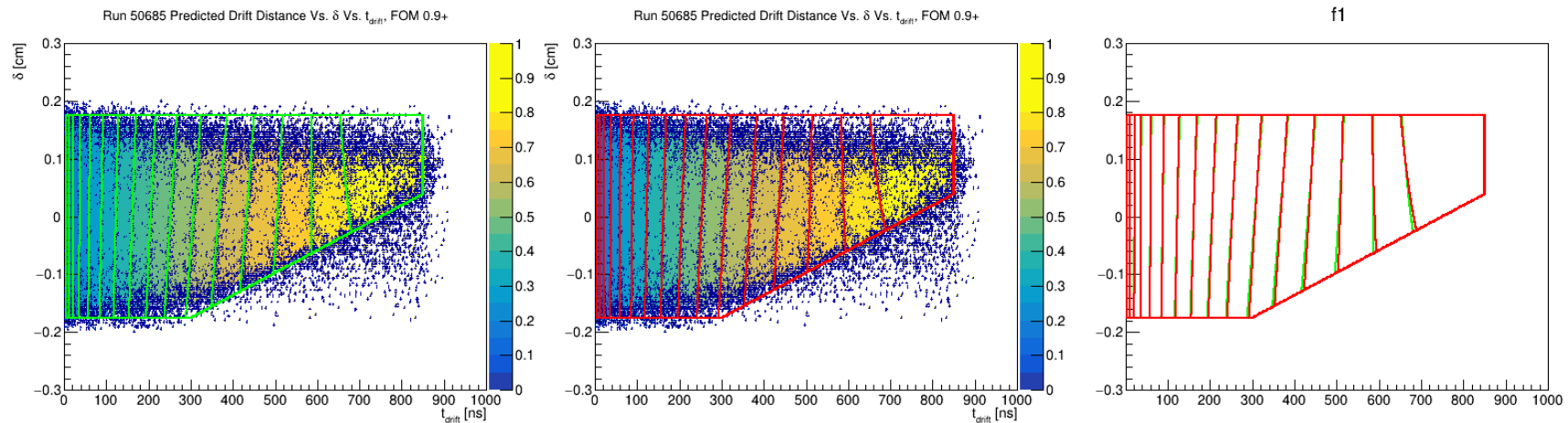| 1 | 0.98164 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.35 | 0.0 | 1.0 | 0.0 |
| 2 | 1.0129 | 0.0 | 0.0 | 0.0 | 0.0 | 5.8 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 |
| 3 | | | | | | | | | | | |

First iteration (CDC-TTOD calib)

First iteration (CDC-TTOD calib)

10 iterations (CDC-TTOD calib)

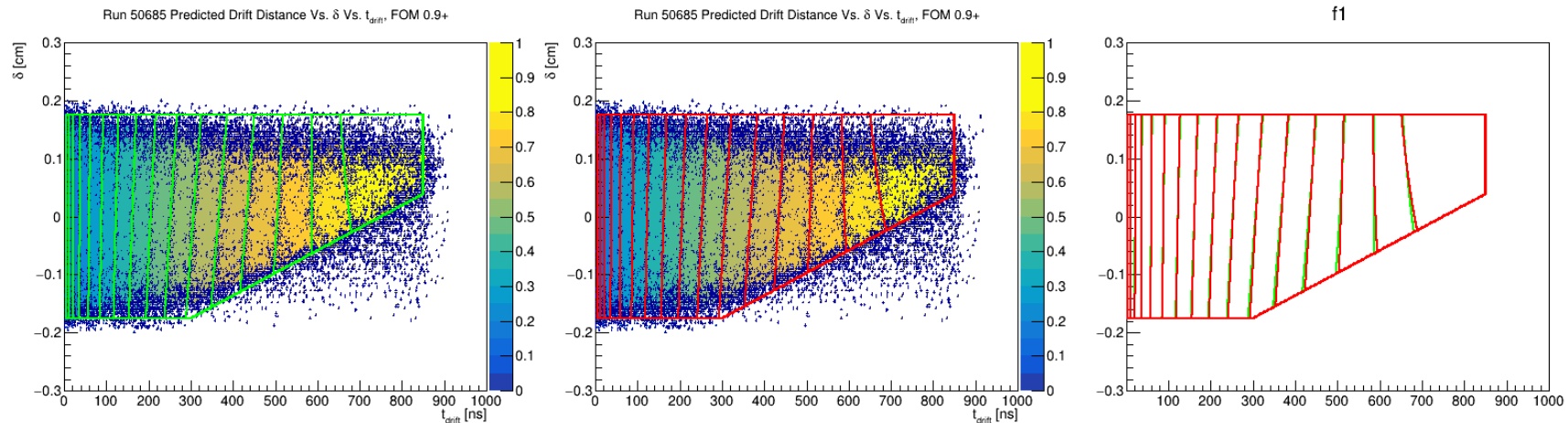## /CDC/drift_parameters initial

```
1  0.98164   0.0  0.0      0.0    0.0    0.      0.0    0.35   0.0    1.0    0.0
2  1.0129    0.0  0.0      0.0    0.0    5.8     0.0    0.0    0.0    1.0    0.0
3
```
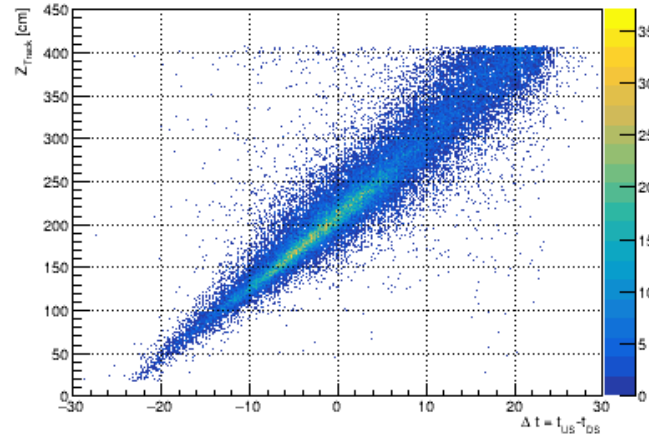
/CDC/drift_parameters final

```
1  1.00547  0.0514937   0 -0.0185262 -0.449918 0 -0.0563083   1.24374 0 1 0
2  1.00547  -0.0514937  0 -0.0185262  0.449918 0 -0.0563083  -1.24374 0 1 0
3
```
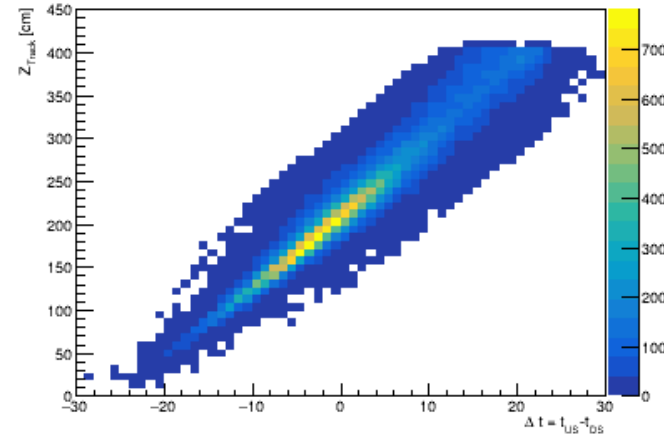
10 iterations (CDC-TTOD calib)

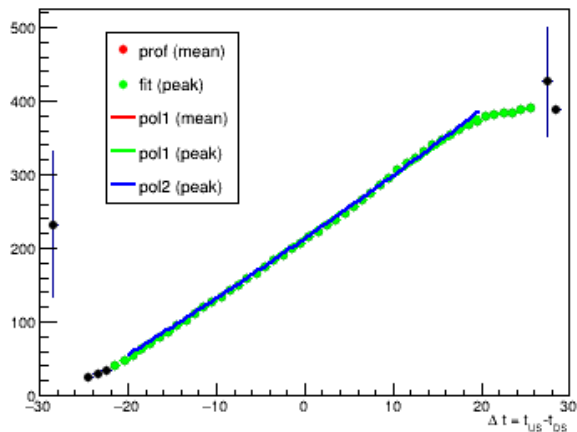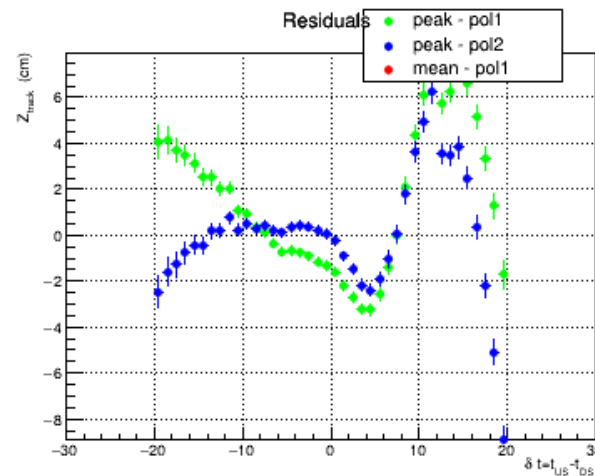Run 50685 Predicted Drift Distance Vs. δ Vs. t_{drift}, FOM 0.9+

Run 50685 Predicted Drift Distance Vs. δ Vs. t_{drift}, FOM 0.9+

f1
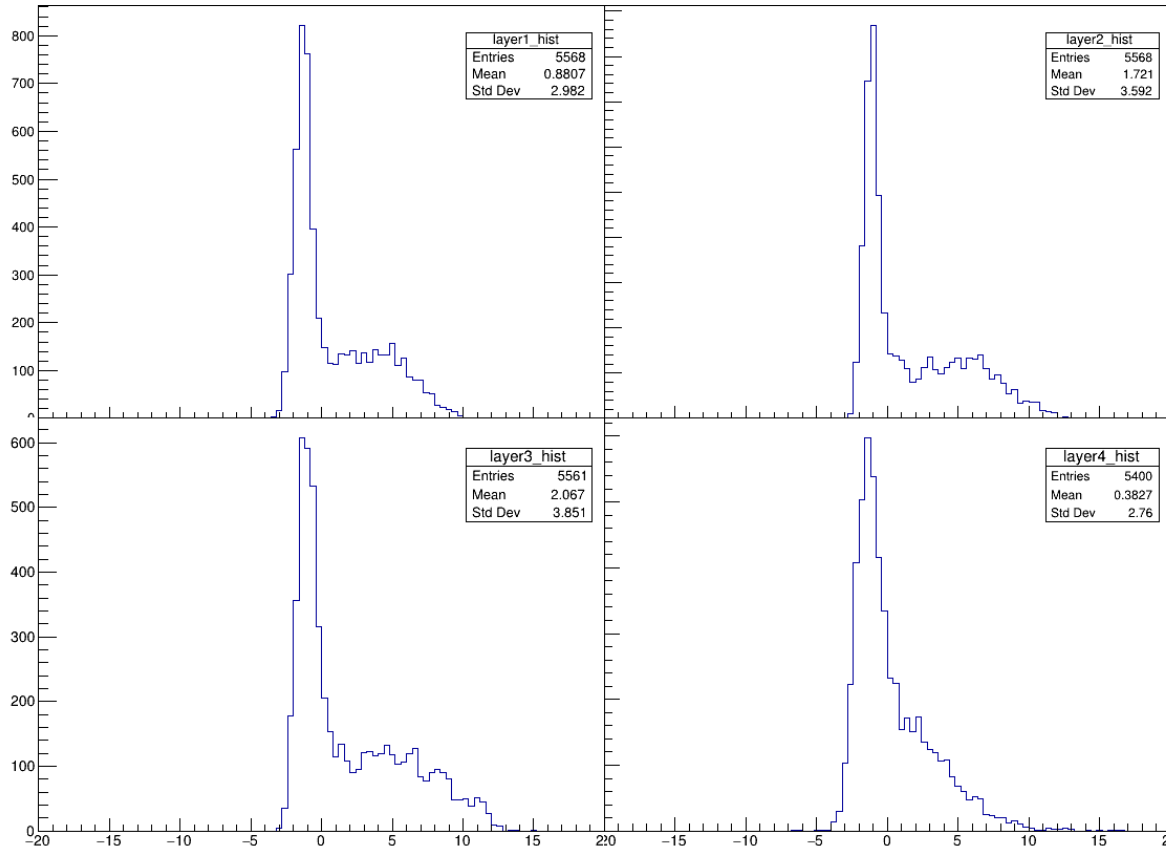
BCAL Residuals
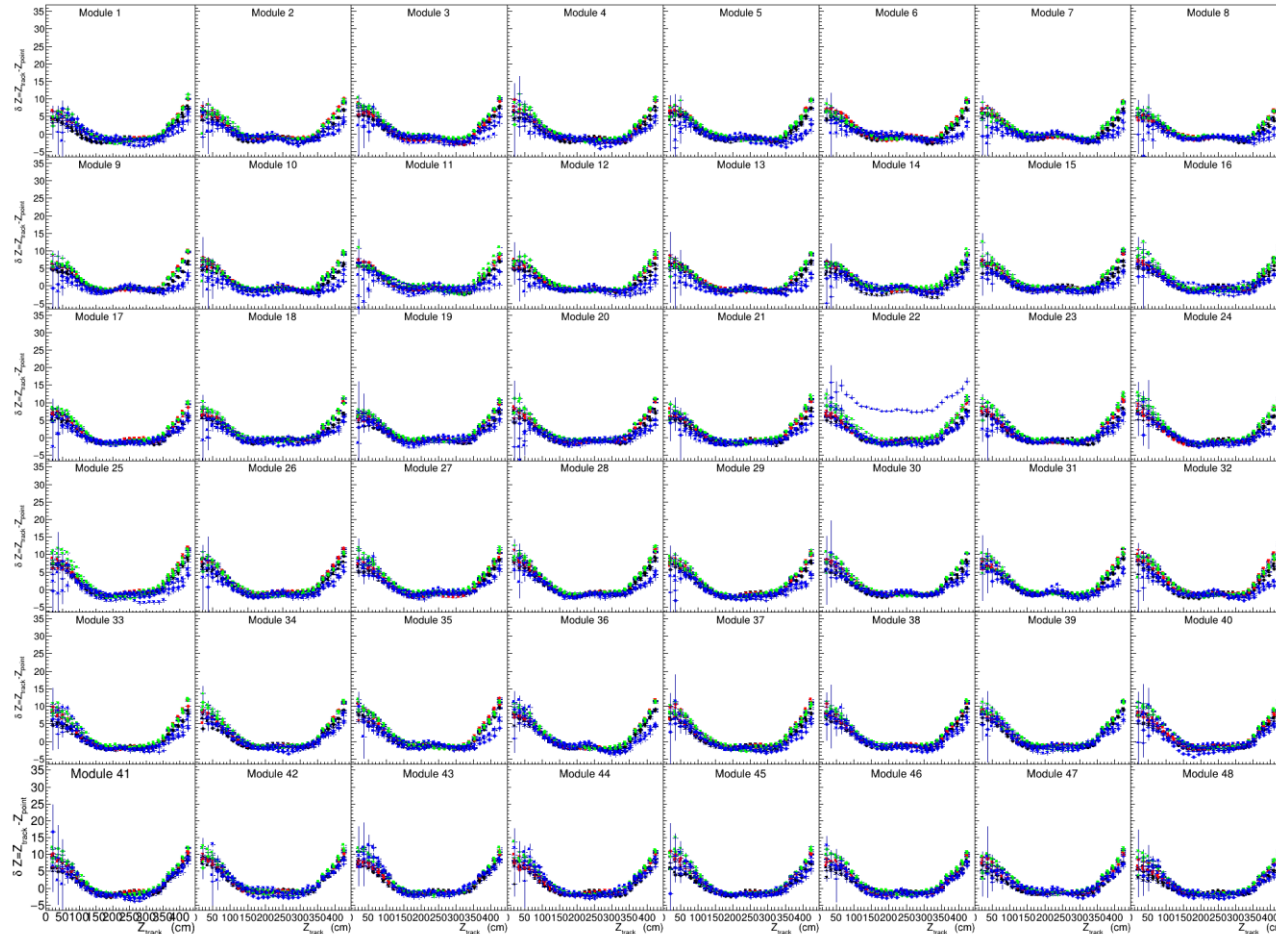
BCAL Residuals

Brainstorming with Mark:
- Reduce fit range
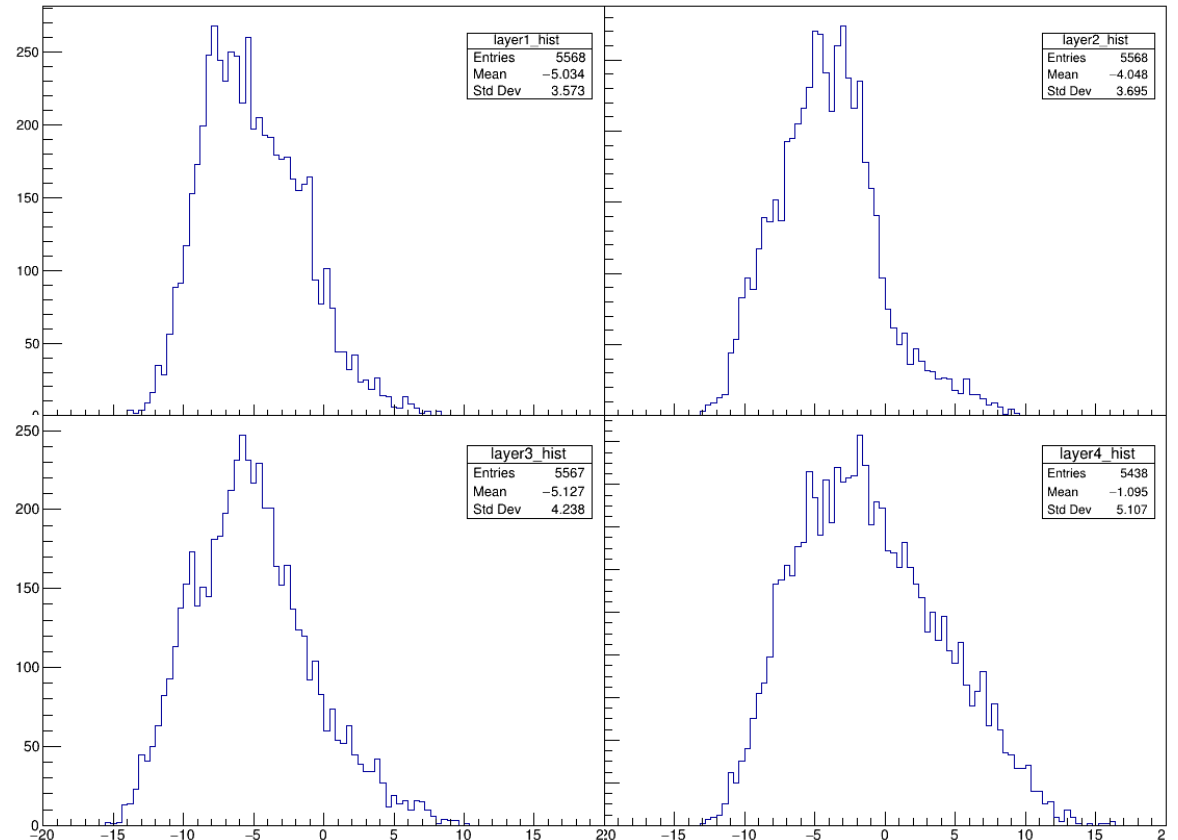- Unweighted fit instead of weighted by stats
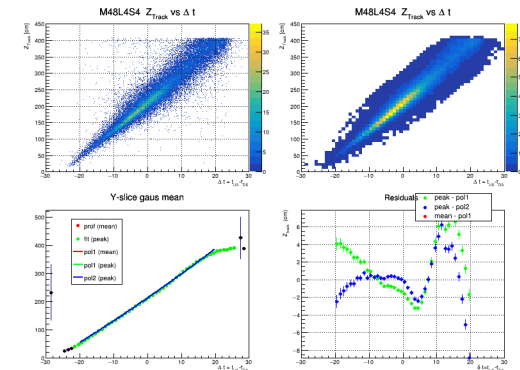
Quantifying Results

1D histogram of residuals from iter 1
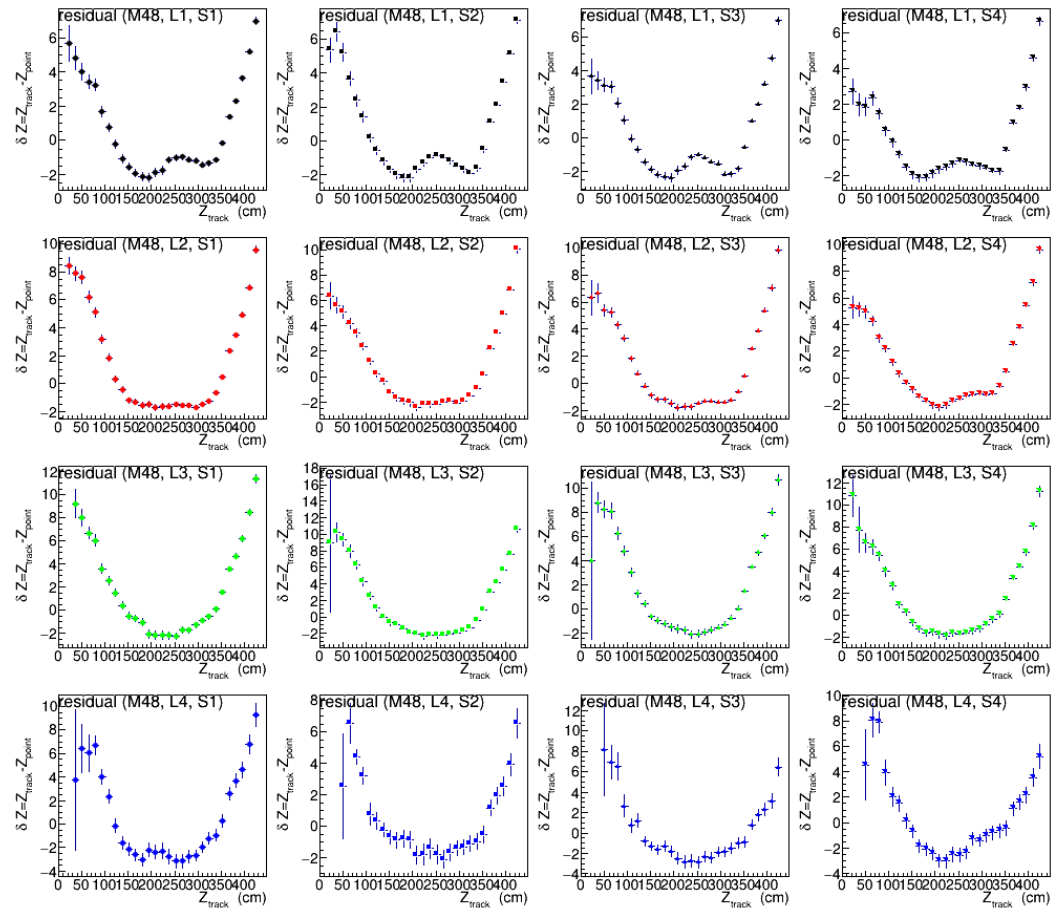(pre-2018 BCAL ccdb tables)

1D histogram of residuals, iter 2
(iter1 constants applied)

Hopefully updating /BCAL/effective_velocities will improve
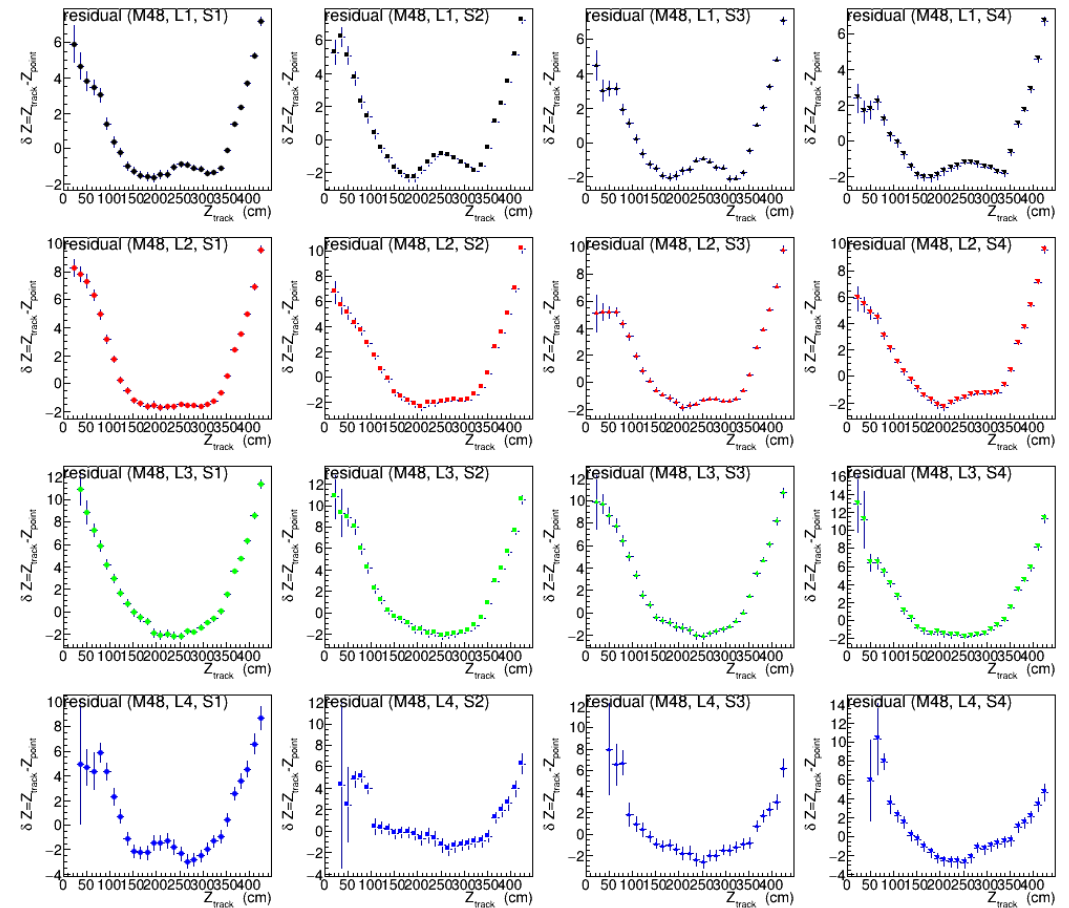
Tweaks to Calibration

Vanilla Procedure

Unweighted fits, trim left/right edges

Summary

- Need to add /BCAL/effective velocities

- Meet with Mark and Naomi sometime next week?

- Look into TOF → FDC t0 calibrations?
  - FOM: FDC residuals

- BCAL π^0 calibrations?
  - Just one subdetector, but ~ 15 iterations

Jefferson Lab