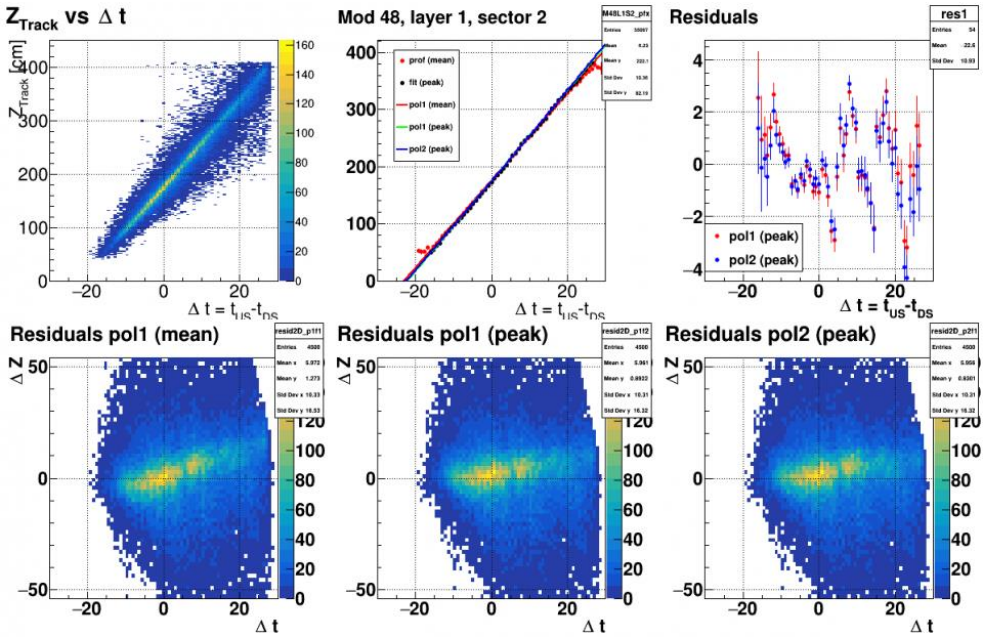
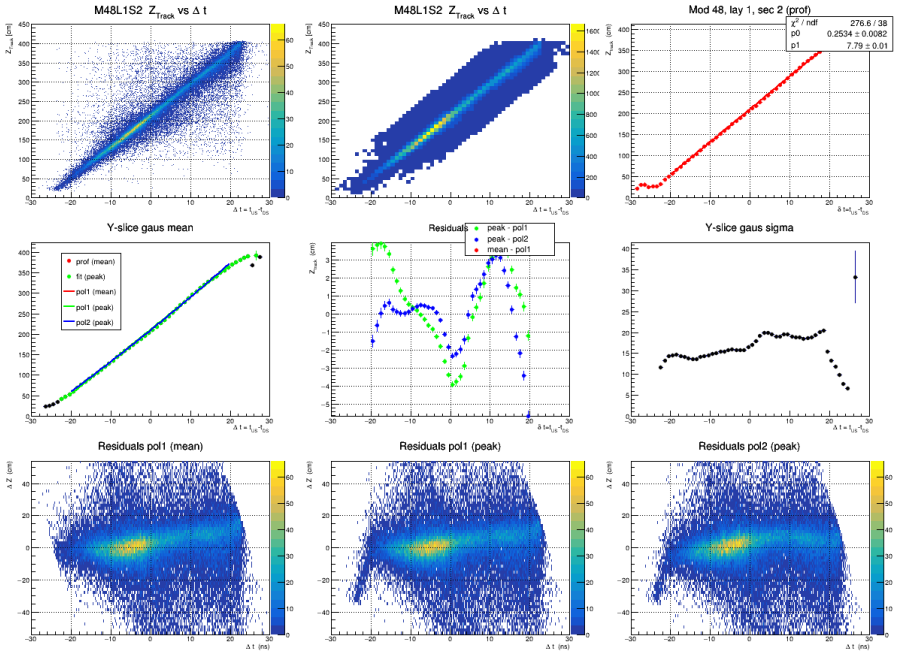
BCAL Calibration

Example from 2017
(15 M events)



https://logbooks.jlab.org/entry/3468218

Run 50685
(35 M events)

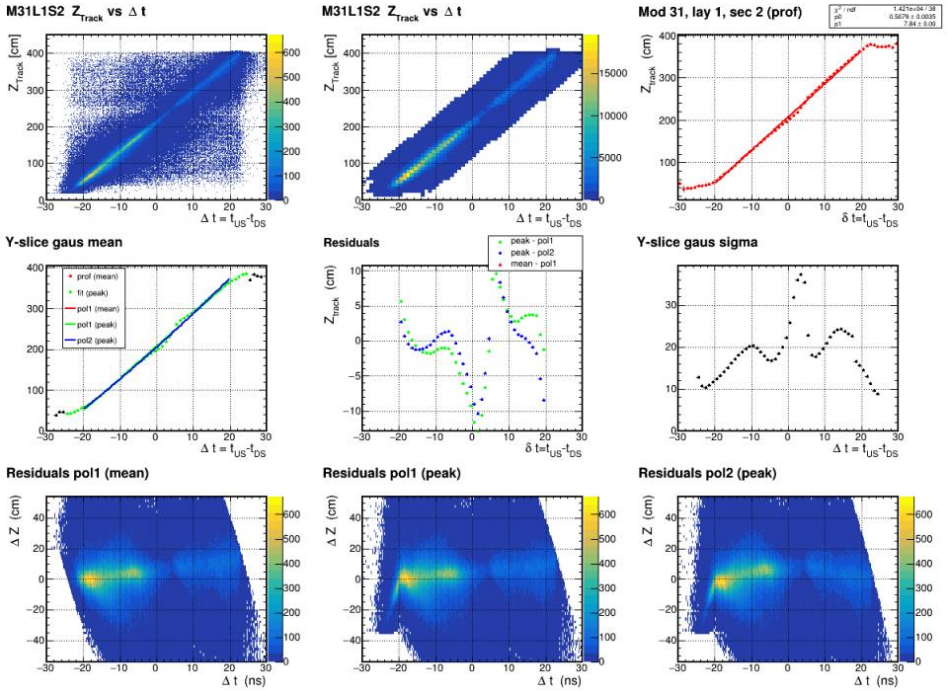


BCAL Calibration

Example from 2022

DIFFERENT TARGET

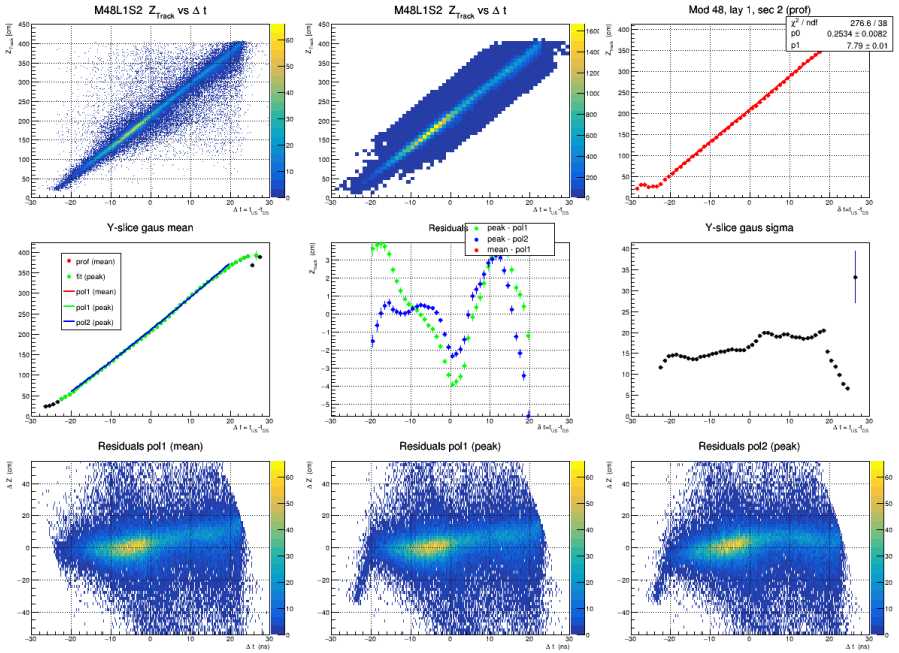
[high stats]



https://logbooks.jlab.org/entry/4161639

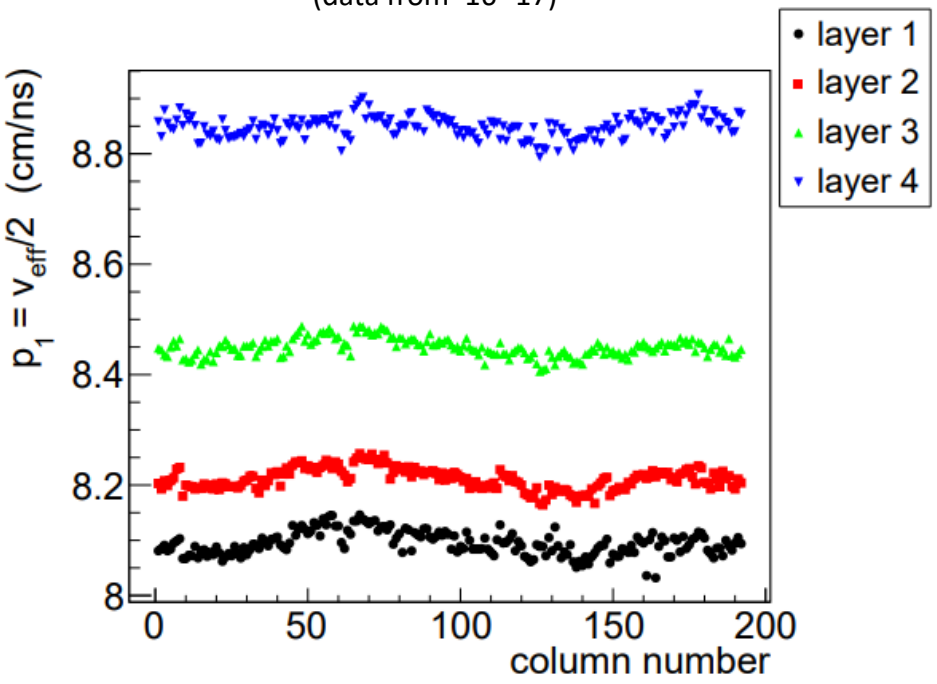
Run 50685

(35 M events)

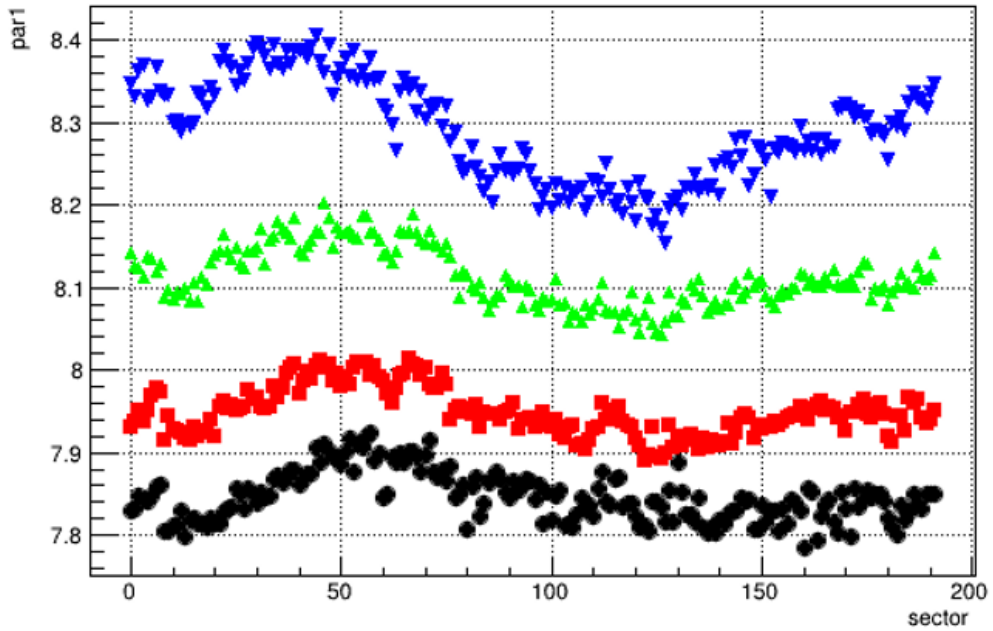


Fit Parameter p1

BCAL NIM 2018
(data from ‘16-’17)



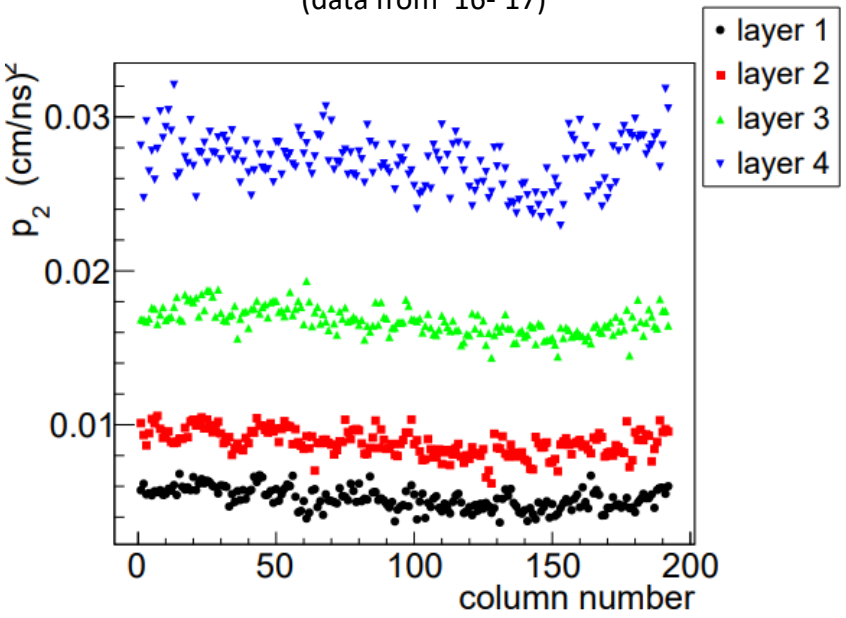
Run 50685
(35 M events)



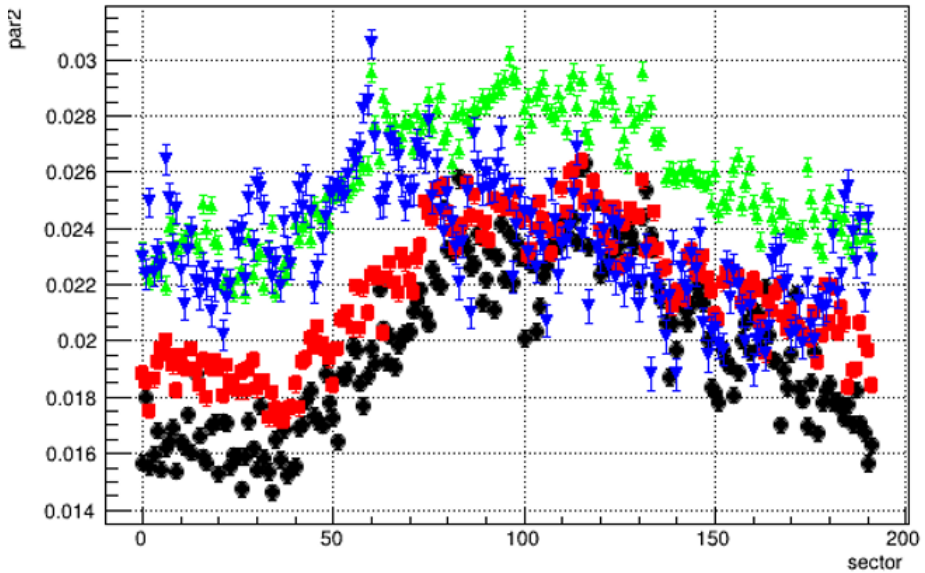
Jefferson Lab

Fit Parameter p2

BCAL NIM 2018
(data from ‘16-’17)

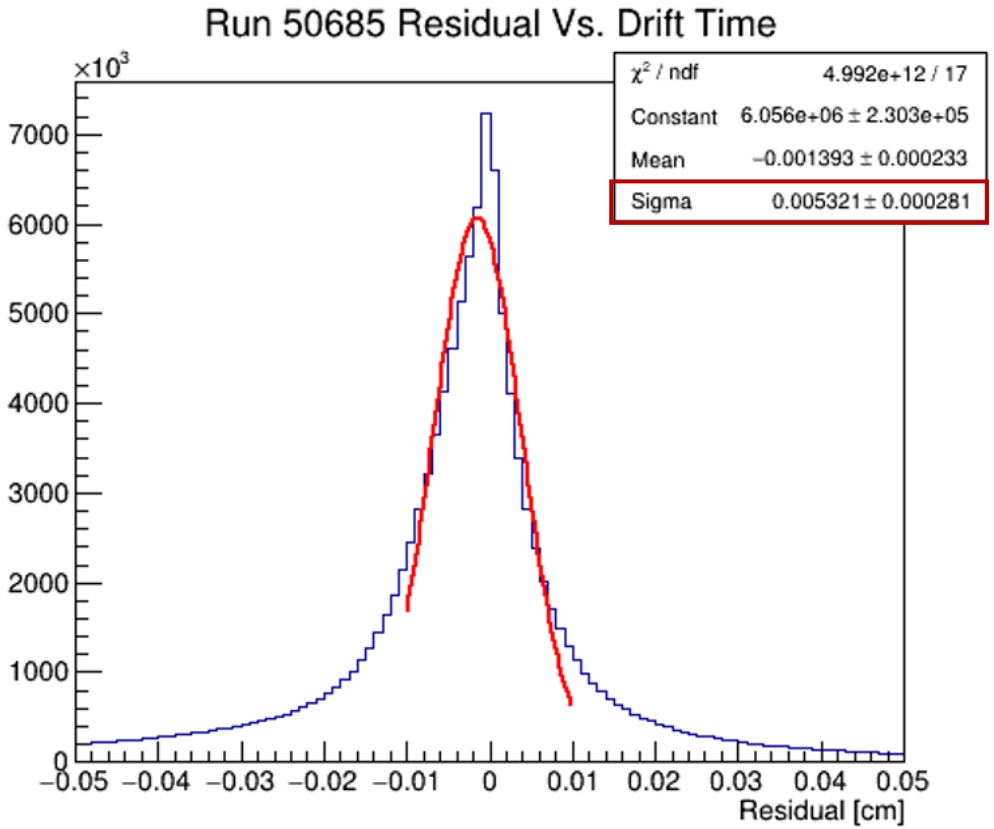


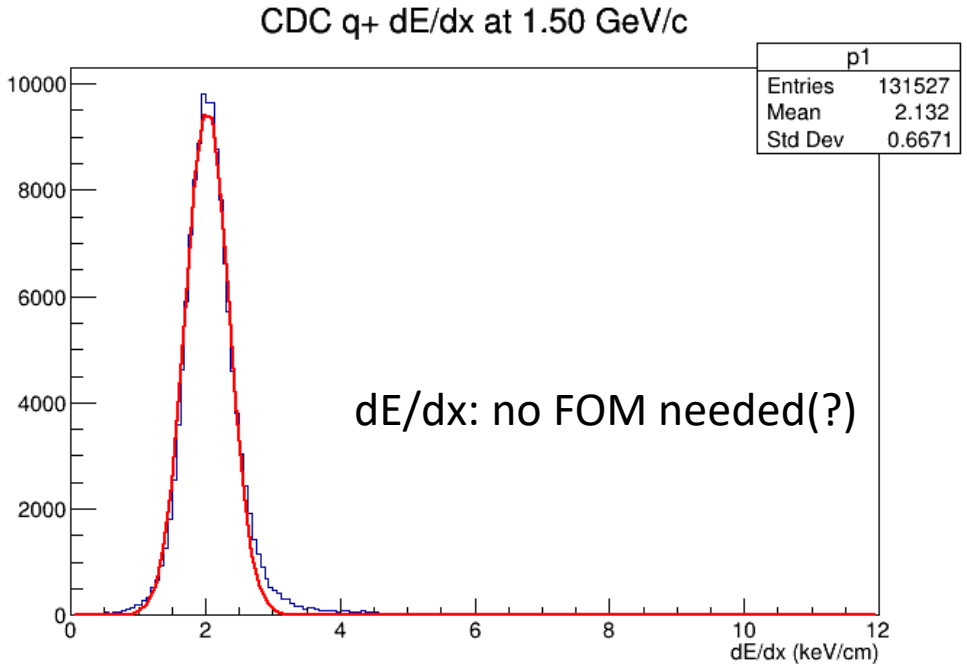
Run 50685
(35 M events)



Jefferson Lab

CDC Figure-of-Merit

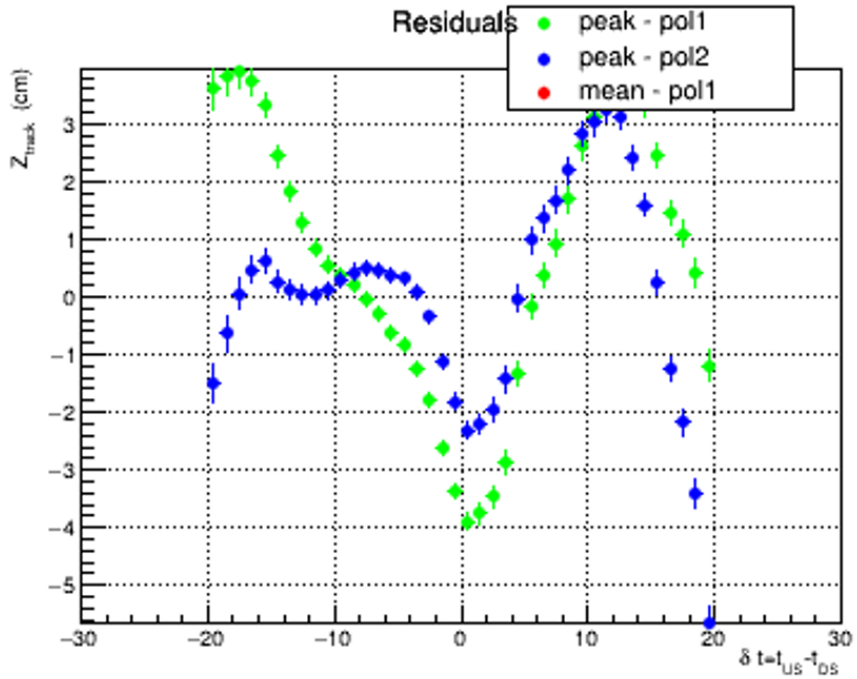




dE/dx: no FOM needed(?)

BCAL Figure-of-Merit

- Add residuals in quadrature? (blue points)
- Should run by Mark D



×768 channels

CDC-to-BCAL Workflow Summary

Start w/ up-to-date CCDB and software, revert tables for:

- `/CDC/drift_parameters`
- `/CDC/digi_scales`
- `/BCAL/tdiff_u_d`
- `/BCAL/z_track_parms`

(1) CDC time-to-distance:

- CDC_TimeToDistance plugin
- ttodfit.C (produces new ccdb constants)
- Update `/CDC/drift_parameters`
- ×10 iterations

(2) CDC dE/dx:

- CDC_dedx plugin
- fit_dedx.C produces new ccdb constants
- Update `/CDC/drift_parameters`

(3) BCAL timing:

- z_point_vs_tracking.C (first)
- z_point_pol2.C (second)
- Update `/BCAL/tdiff`
- Update `/CDC/drift_parameters`