Weekly Update 07/30/21

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Housekeeping

- All current changes can be now found at dunetpc/feature/jierans_SNBPointing
- Plotting scripts/POMS config files/custom fcl generator files: /dune/app/users/jierans/SN_Pointing/
- Upgraded to Larsoft/dunetpc v09_27_00 to incorporate refactor changes

Event Display

- In feature branch: dunetpc/dune/evd/evd_dunefd_refactored, porting most configurations from ProtoDune's event display to dunefd.
- Setting the correct track/hit/wirecell modules
  - Might still be missing some pandora module labels as I am not using them
- Reconfiguring the pedestals to correspond to ProtoDune's pedestal settings.
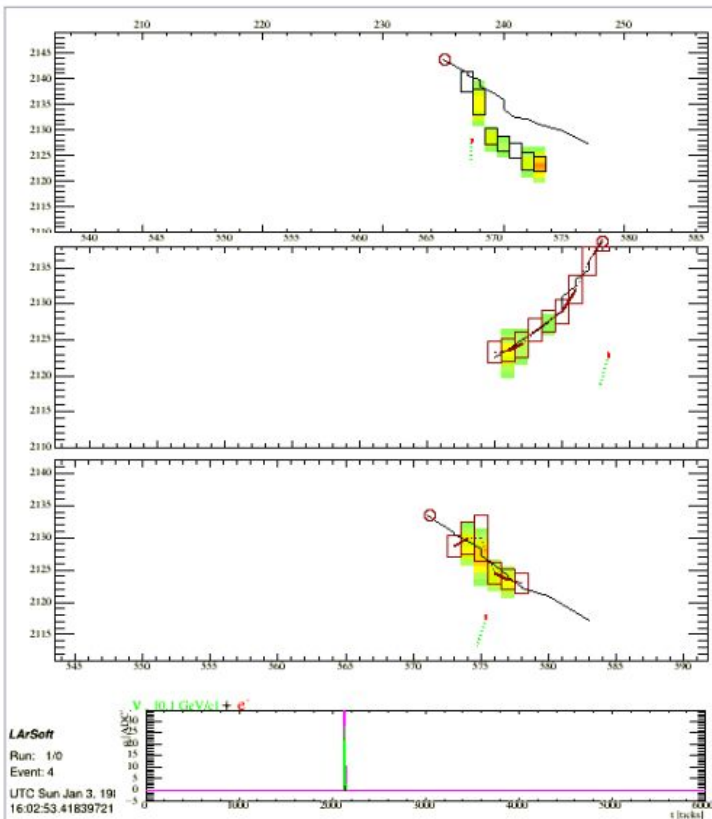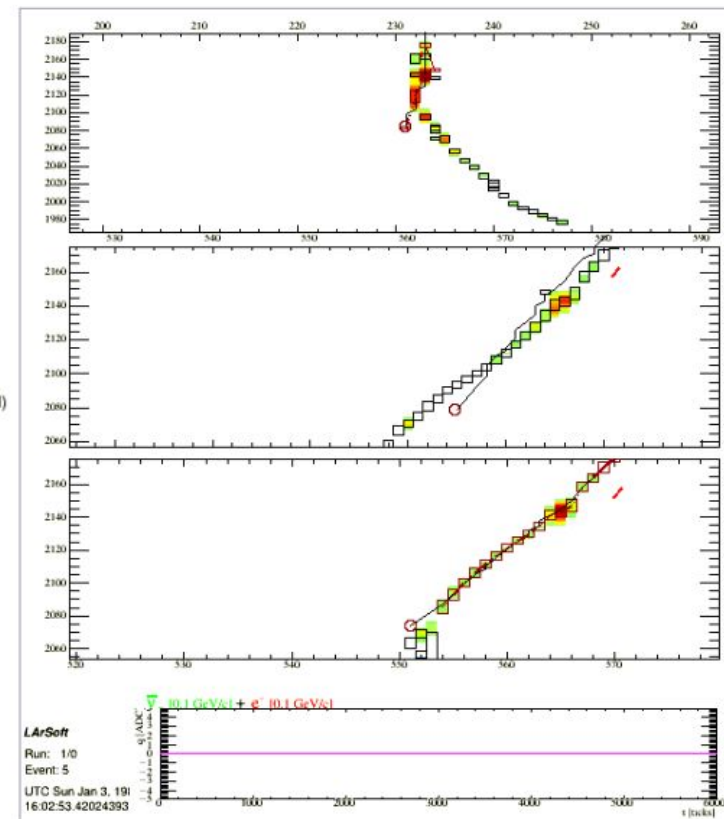
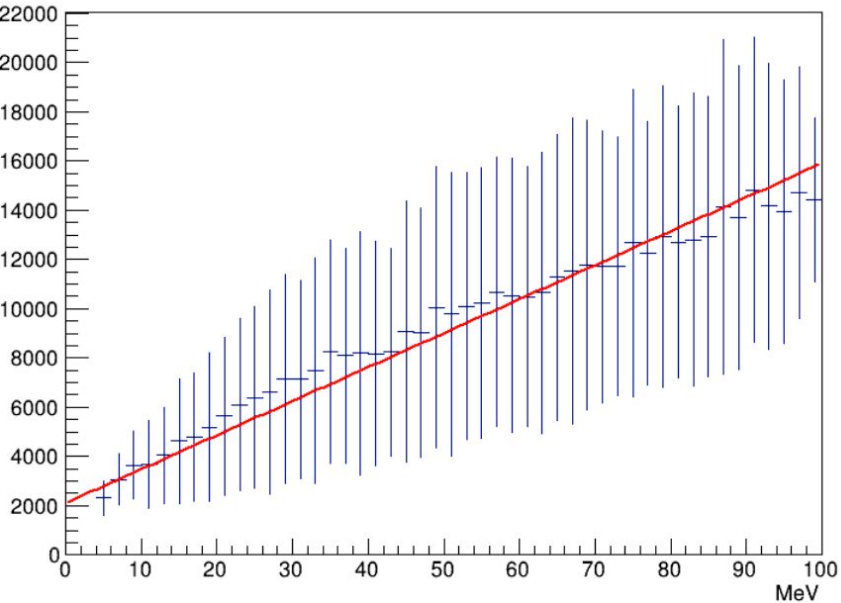Low energy: 11 MeV   High energy: 82 MeV

Charge-Energy correlation

- Found a bug with the BackTracker as SimChannel labelling is not set correctly, causing cheating reco checks to not work properly. Dom has fixed this.
- Generated events in the center of the TPC, see no significant improvement.
- Changed PointResTree module such that we are doing SumADC across all hits in the event.
  - Previously only summing hits tagged with the primary (longest) track, missing bremsstrahlung hits.

Weird Bump for U/V plane
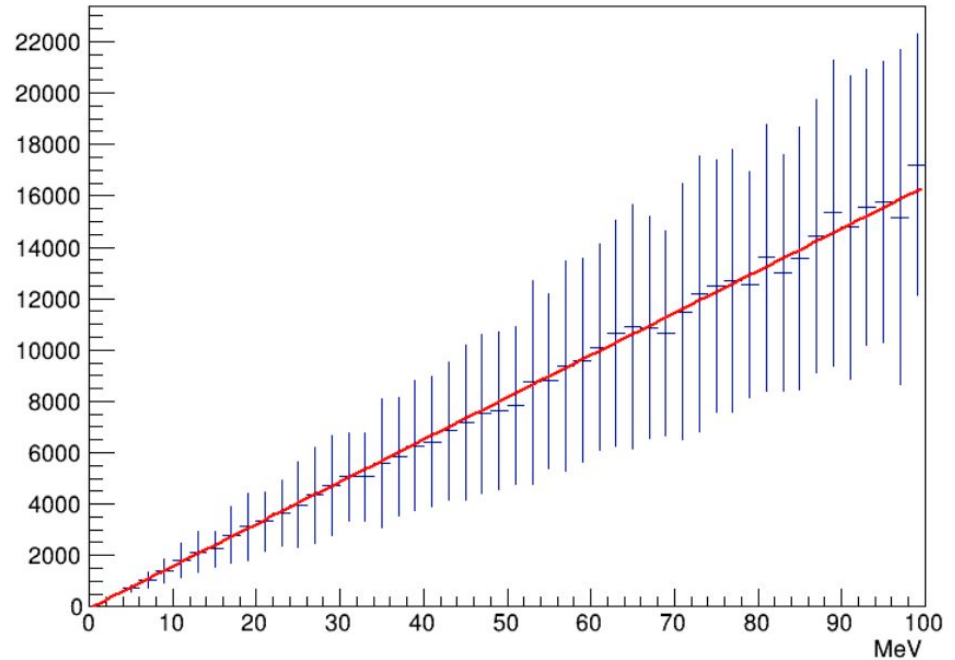
Misc/Next Steps

- Size of the detsim/reco stages: most of this comes from wirecell raw digits. Dom is investigating ways of trimming this back
- Investigate why daughter flipping has stopped working
    - Seems like there are less tracks to go with in general, needs confirming
- Refactoring AJ's PointResTree module
    - Code is getting cluttered from all sorts of testing
    - Keep track of more information: all tracks, number of hits, etc.