



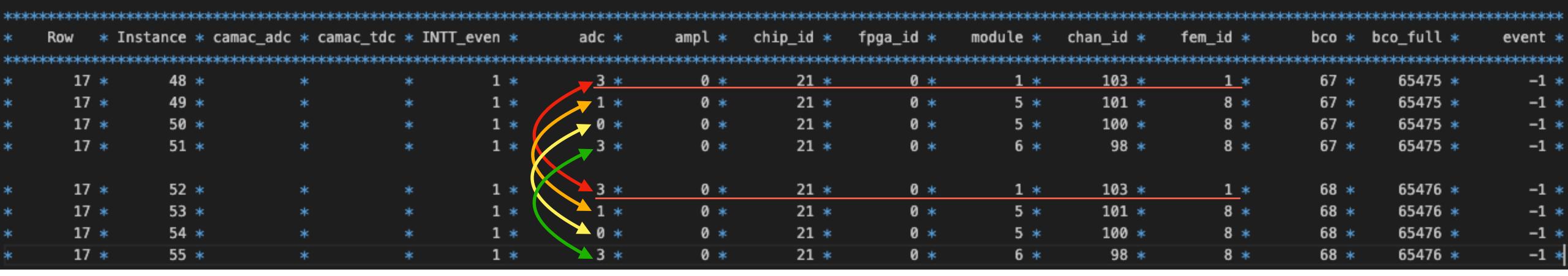
dN/dη meeting January 22th 2024



## Clone event (INTT beam test 2021 @ ELPH)



File: BeamData\_20211210-0302\_0.root (run52)



The pairs are identical! only the timing information is different!

- They are in the same "trigger event"
- The two groups have identical content except the bco and bco\_full
  - Are they clone event? or just coincidence?
  - Not quite sure, so currently we use 5 BCO difference cut

## Clone event



- Runs checked: 9/10 ZF runs except run 20866 (no event\_base file)
  - 20864, 20867, 20868, 20869, 20878, 20880, 20881, 20883, 20885
- File directory: /sphenix/tg/tg01/commissioning/INTT/root\_files
- Files used: beam\_inttX-000YYYYYY-0000\_event\_base.root
- Procedures
  - Compare the number of hits across 5 bco\_fulls
  - If fNhitses are found to be identical in these two events, check the distribution of chan\_id
  - If the chan\_id distributions are found to be identical and
    - fNhits > 1
    - StdDev of dist. != 0 && Mean of dist. != 0 → Reject the event with only chan\_0 fired
    - (fNhits # of fired chan\_id zero) > 10 → Reject the event with so less portion of the rest chan fired
    - → Perform the further check

Among these 9 runs x 8 files = 72 files, no event was found that fully passed the criteria

→ No clone event found