HCAL+BBCAL Meeting
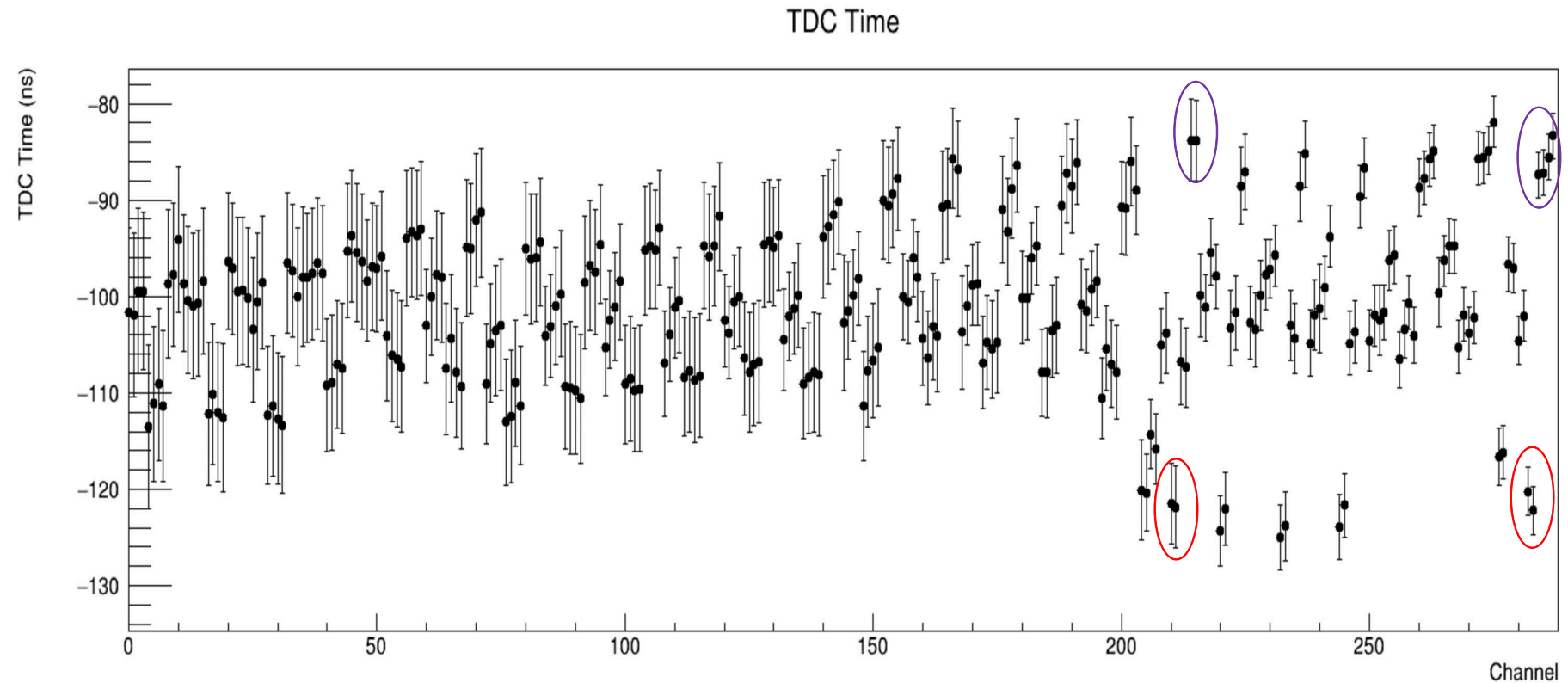## 09/14/2022

Updates:

- BBCAL PMT base replaced (Arun, Provakar)

- HCAL timing offsets (Jiwan, Sebastian): Cosmic run with paddle trigger
  - ~10 ns variation among PMTs (columns 5, 6, 7 ,8 PMTs compared to others)
  - More dispersion (~40 ns) in the bottom half of HCAL (reason??)
  - Delayed in Front End or back end units?

- Coincidence between BBCAL and HCAL (Jiwan)
  - Effect of dispersion in Summing module
  - Threshold vs width vs multi-trigger

HCAL TDC timing distribution and summing

- Reason could be PMTs or cabling or electronics
- ~10 ns between two types of PMTs compensated with extra cables after the first summing module
- Early channels comes ~ 18 ns early in DAQ Patch Panel but not in FE Patch Panel (checked with pulser, PMT not included)

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HCAL TDC timing distribution and summing

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HCAL Sum Trigger

HCAL Diagram with modified UVA-120