2x2 Data Assessment: Ground Bounce/E-Board Triggers

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11.20.2024
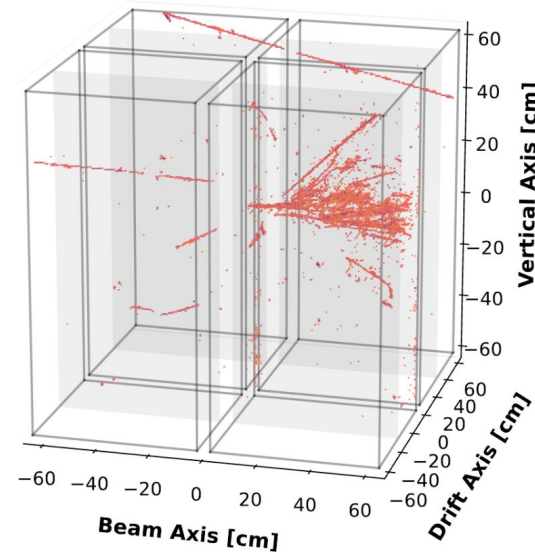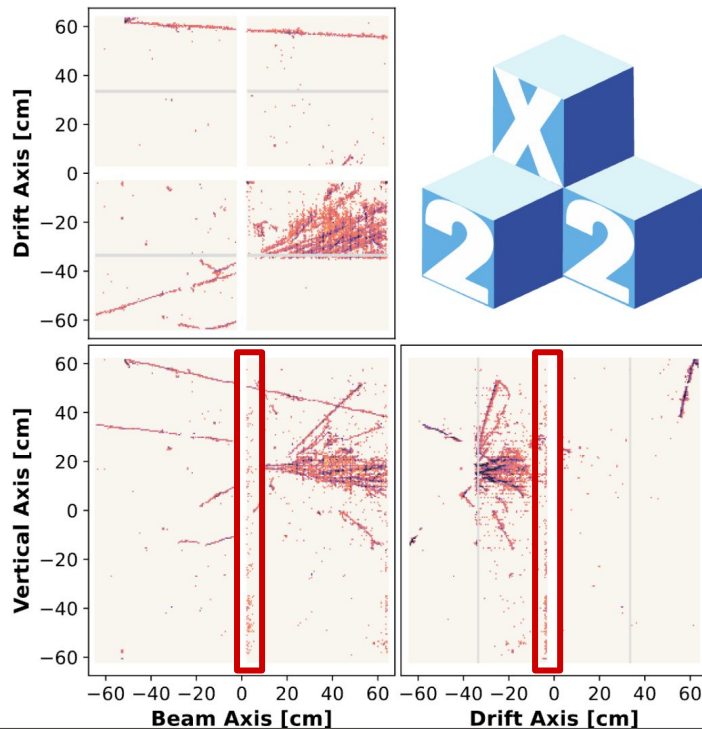
In-Process:

Looking for lines of charge at t0
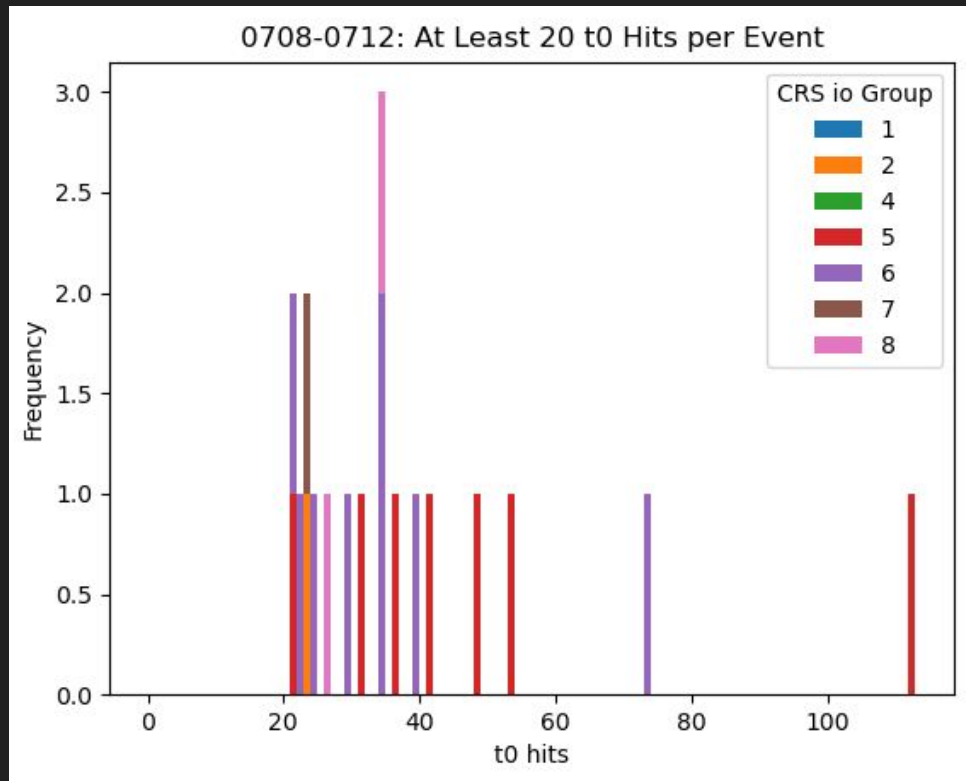
Ground Bounce:

at least 7 hits at t0 in an event:
ran over 300 files (almost all of nominal run)
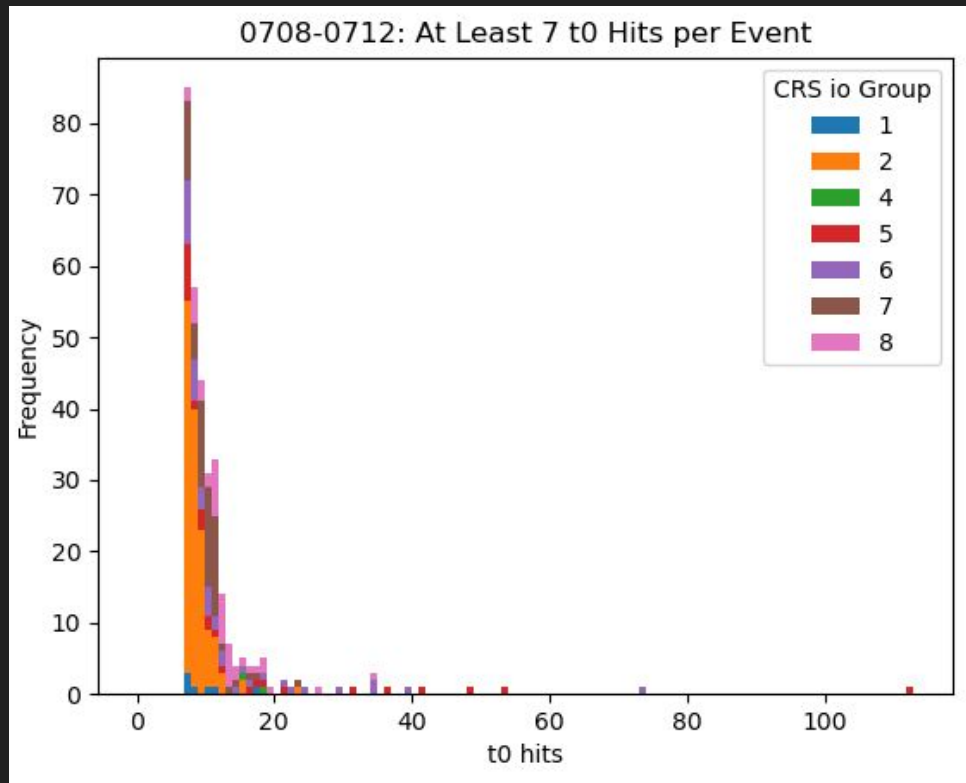
Ground Bounce:

at least 7 hits at t0 in an event: ran over 300 files (almost all of nominal run)

Question: is # hits at t0 a good cut?

0708-0712: At Least 20 t0 Hits per Event

Ground Bounce:

Answer: No.   Hand-scanned Event Selection:

|	file_name	timestamp	charge_event	n_t0_hits	io_groups	LRS TPC
1	**Not Every File: Most** .hdf5	2024_07_09_19_16_36	1971	112	5	4
2		2024_07_08_14_13_29	4111	73	6	5
3		2024_07_08_21_44_18	2980	53	5	4
4	packet-0050017-2024_07_09_19_06_35_CDT.FLOW.hdf5	2024_07_09_19_06_35	4083	48	5	4
5	packet-0050017-2024_07_09_14_56_08_CDT.FLOW.hdf5	2024_07_09_14_56_08	7398	41	5	4
6	packet-0050017-2024_07_09_18_36_31_CDT.FLOW.hdf5	2024_07_09_18_36_31	5414	39	6	5
7	packet-0050017-2024_07_09_19_06_35_CDT.FLOW.hdf5	2024_07_09_19_06_35	3118	36	5	4
8	packet-0050017-2024_07_09_16_36_19_CDT.FLOW.hdf5	2024_07_09_16_36_19	5340	31	5	4
9	packet-0050017-2024_07_09_10_25_39_CDT.FLOW.hdf5	2024_07_09_10_25_39	5856	24	6	5
10	packet-0050017-2024_07_09_14_26_05_CDT.FLOW.hdf5	2024_07_09_14_26_05	4008	21	5	4
11	packet-0050017-2024_07_09_08_35_27_CDT.FLOW.hdf5	2024_07_09_08_35_27	4057	18	5	4
12	packet-0050017-2024_07_09_10_05_37_CDT.FLOW.hdf5	2024_07_09_10_05_37	4200	18	6	5
13	packet-0050017-2024_07_09_17_06_22_CDT.FLOW.hdf5	2024_07_09_17_06_22	8386	17	5	4
14	packet-0050017-2024_07_08_21_34_17_CDT.FLOW.hdf5	2024_07_08_21_34_17	1969	16	5	4
15	packet-0050017-2024_07_09_02_24_48_CDT.FLOW.hdf5	2024_07_09_02_24_48	6747	14	6	5
16	packet-0050017-2024_07_08_19_54_06_CDT.FLOW.hdf5	2024_07_08_19_54_06	5399	12	6	5
17	packet-0050017-2024_07_09_07_15_19_CDT.FLOW.hdf5	2024_07_09_07_15_19	5474	12	5	4
18	packet-0050017-2024_07_09_07_25_20_CDT.FLOW.hdf5	2024_07_09_07_25_20	1876	8	6	5
19	packet-0050017-2024_07_09_05_55_10_CDT.FLOW.hdf5	2024_07_09_05_55_10	4048	7	6	5
20	packet-0050017-2024_07_09_05_15_06_CDT.FLOW.hdf5	2024_07_09_05_15_06	1495	7	5	4

Ground Bounce:
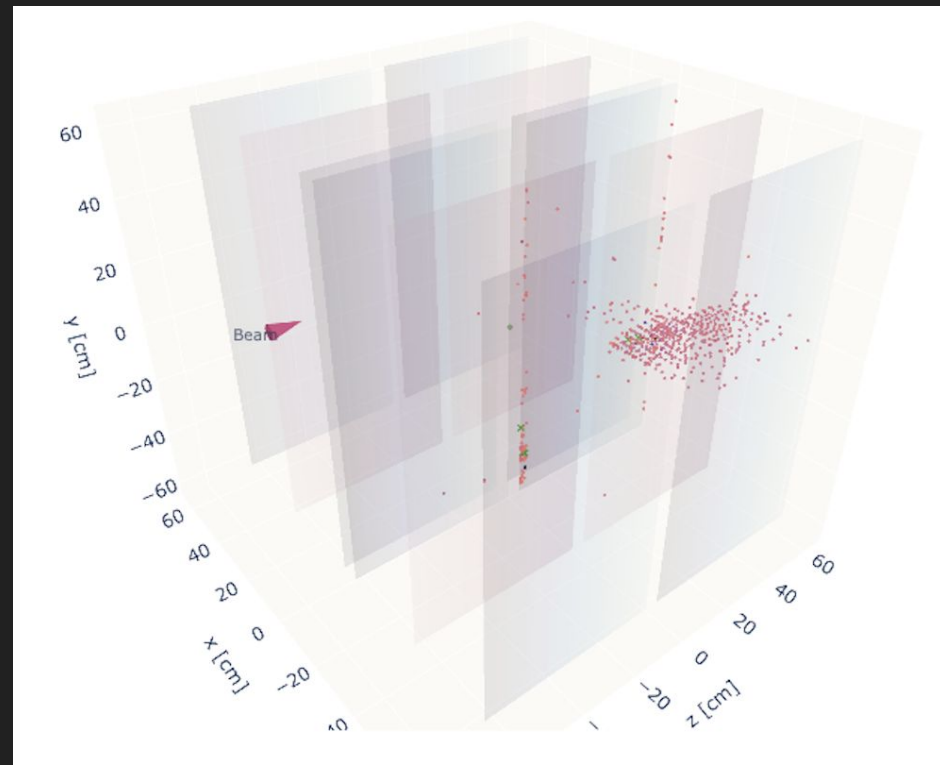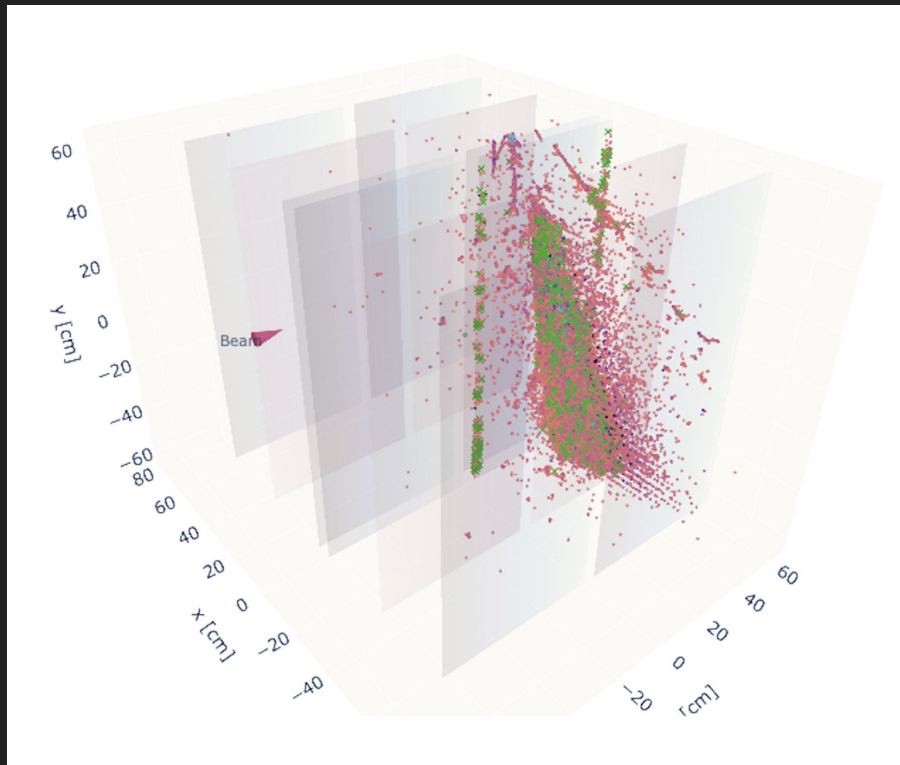
Module 2: TPC 4, ΣE = 0.0GeV
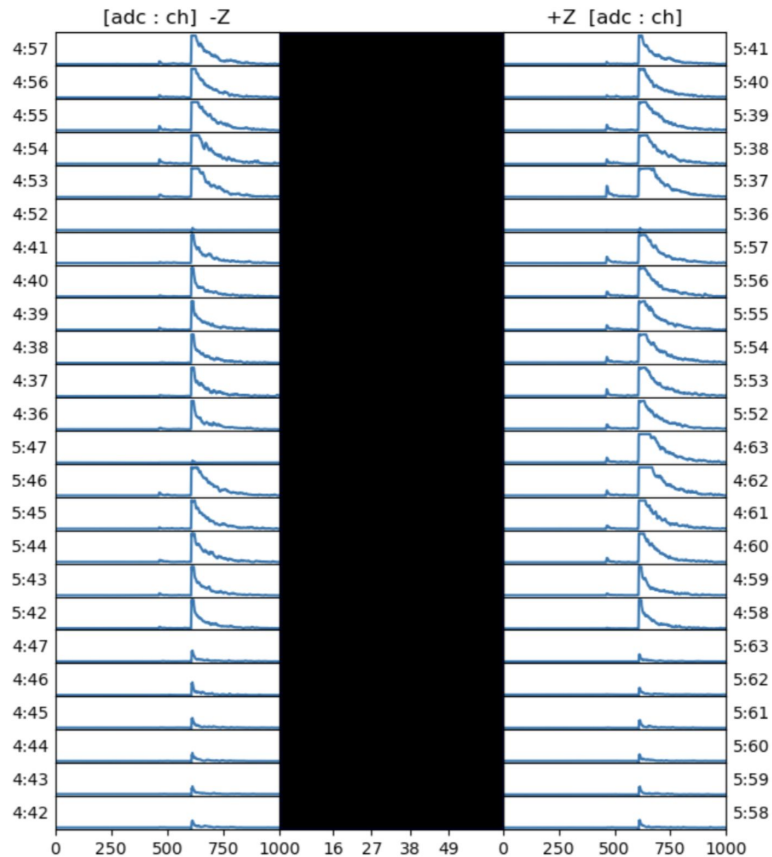
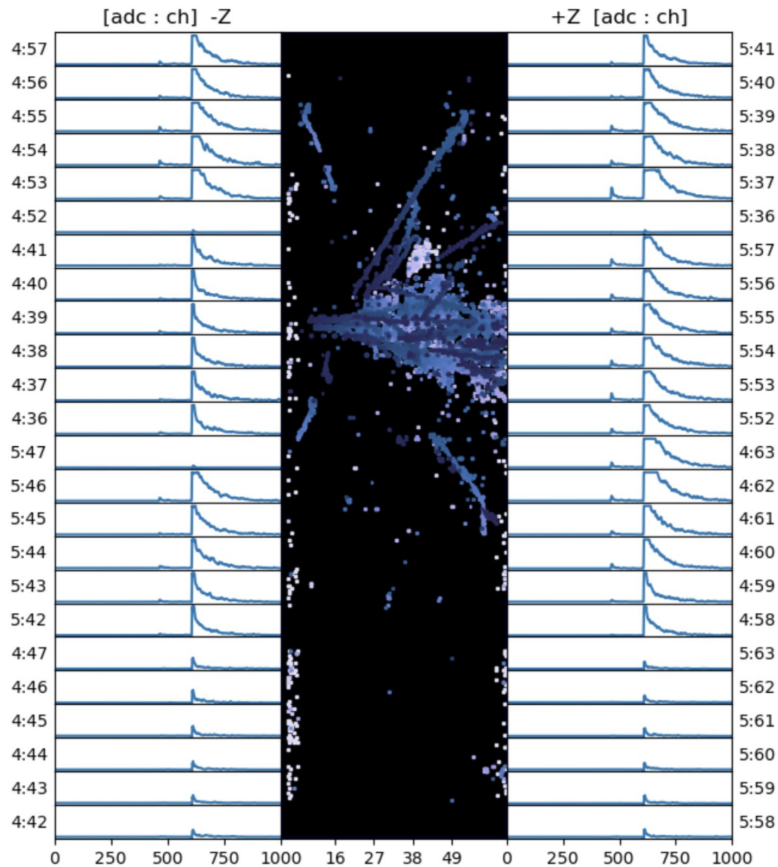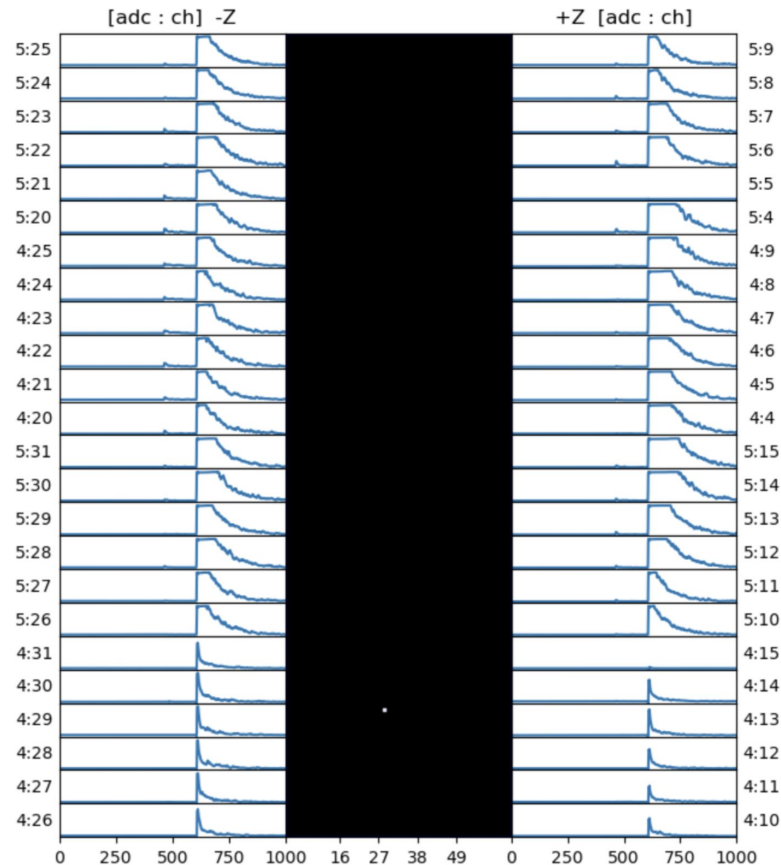In TPC 5, can see a pattern in light waveforms: saturation across most channels

Charge ID: 4111

Light ID: 4728

Module 2: TPC 5, ΣE = 4.086GeV

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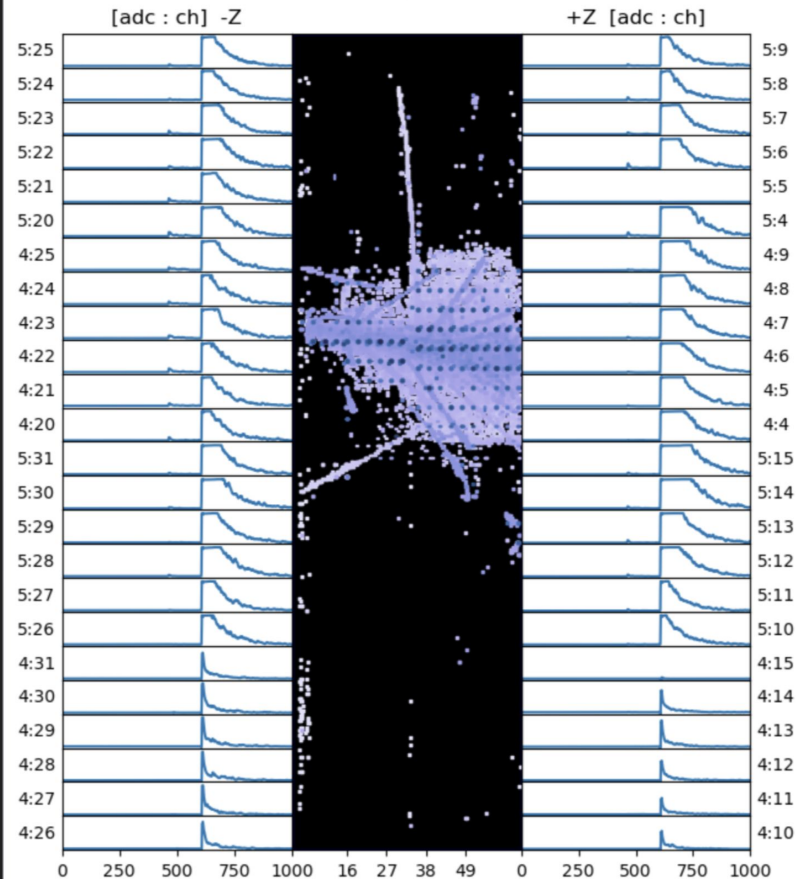
In TPC 4, can see a pattern in light waveforms: saturation across most channels

Charge ID: 4121

Light ID: 4728

11.20.2024, Data Assess
A.J. White

Conclusions

No E-Board events after CRS threshold increase

In Progress:

    Cutting on 1GeV as a selection (needs to be refined)

    Have run cut over 1 FSD file and seen no E-board trigger