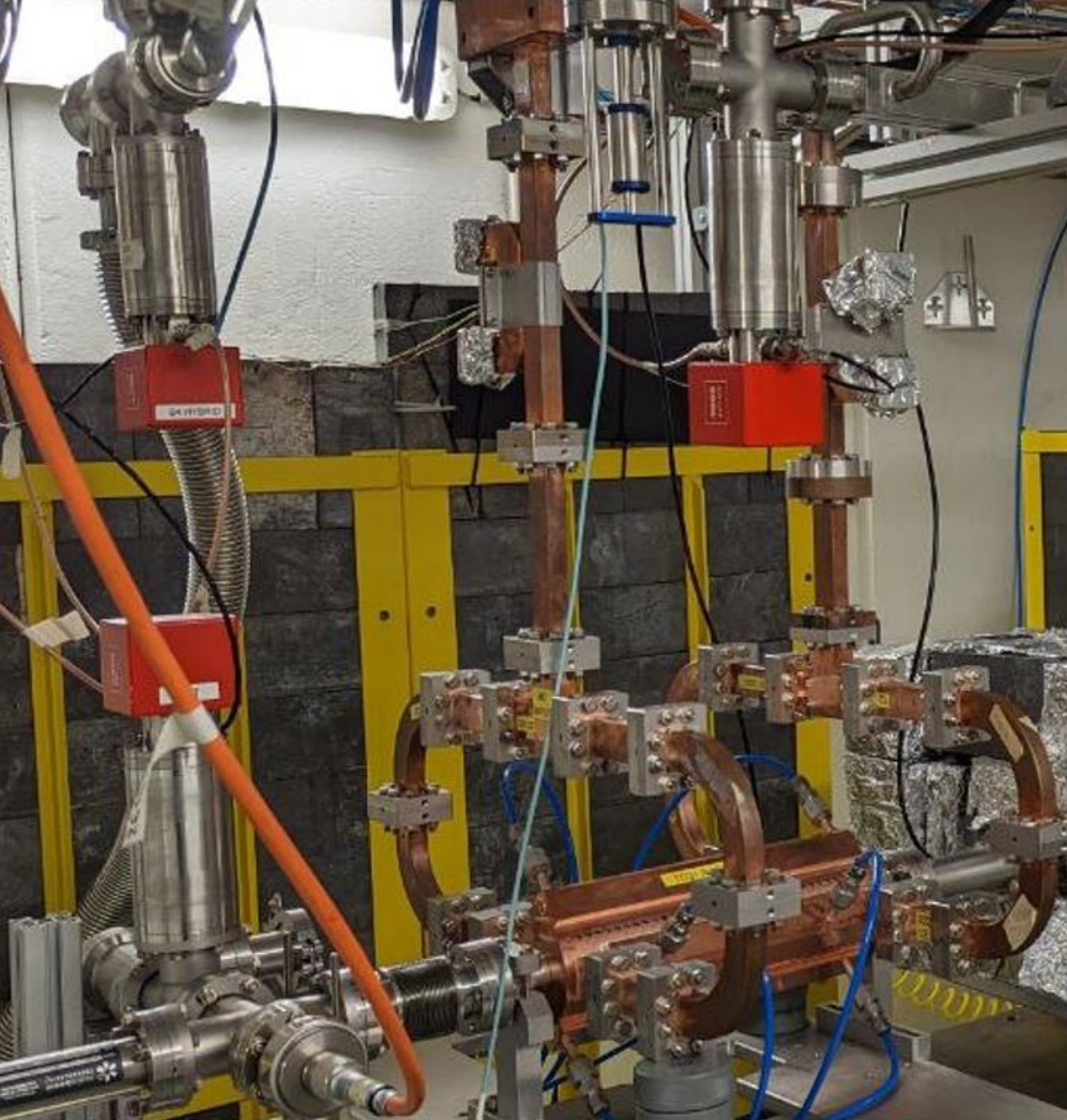


X-Box Summary

9.10.2024

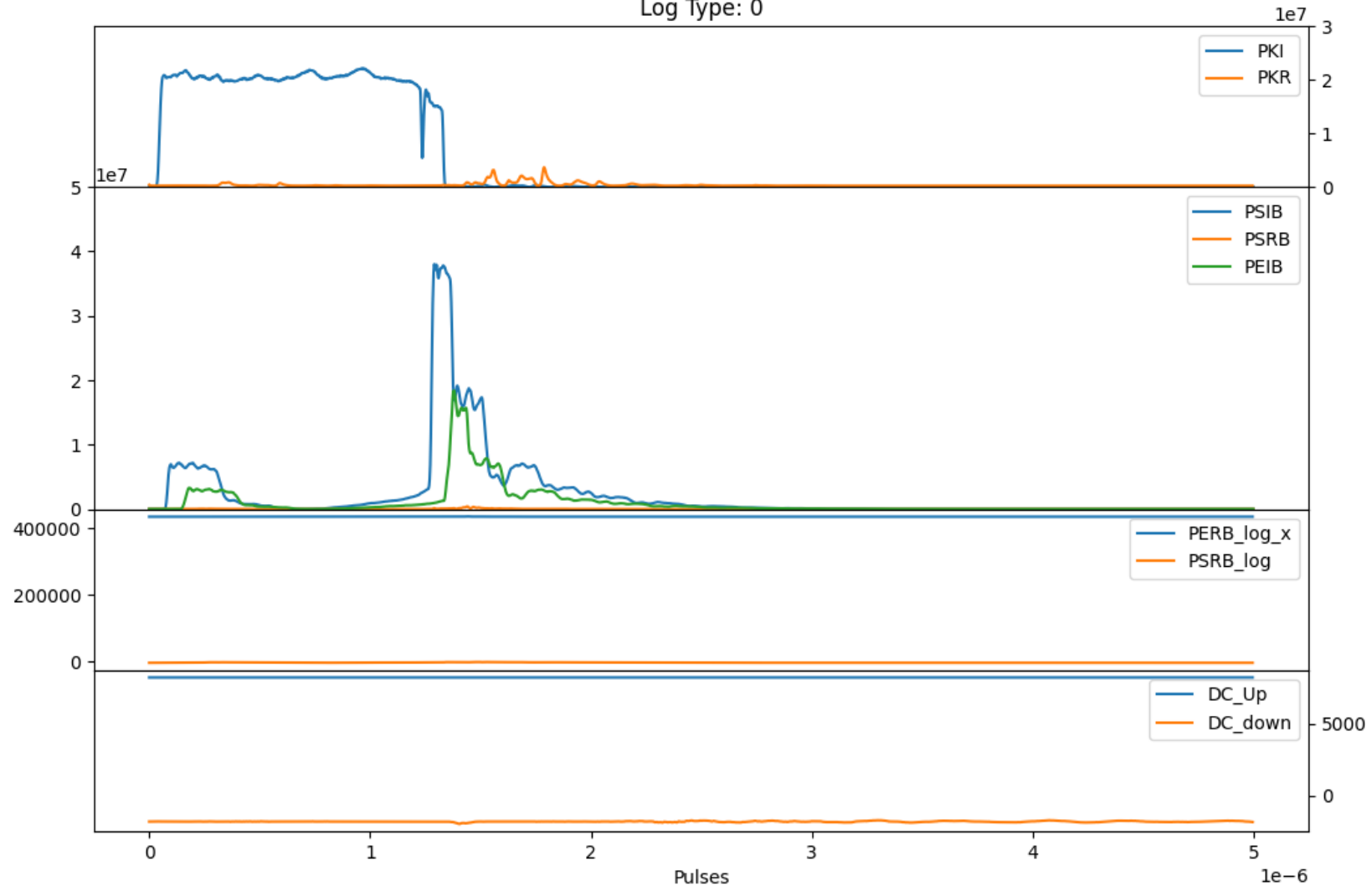


X-Box 2 TD31 N3 N4: Structure B

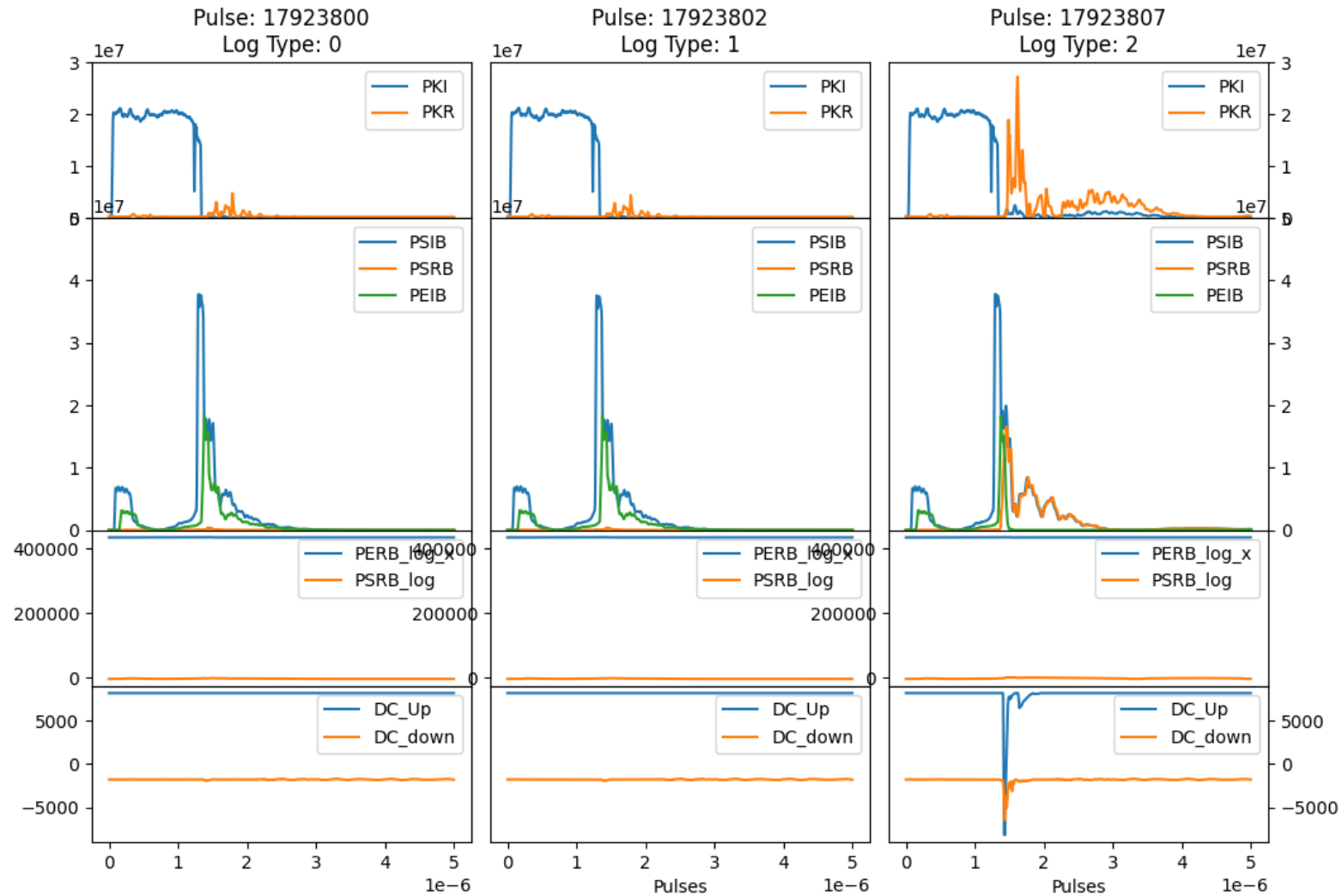
- **Many problems during summer**
 - Visit Scandinova 6-9th August
 - Several problems with IGBT in HVPS
 - Decided to reduce voltage and wait for next fault
- **Restarted 28.09.2024**
- 100:1 ratio, all power to Structure B
- Pulse width 100ns
- **Setpoint DUT 51MW**
- BDR=2E-5 (Monday 7th)
- **IGBT Interlock in modulator HVPS2**
 - Scandinova visit 14th October

X-Box 2 TD31 N3 N4 Structure B- Pulse

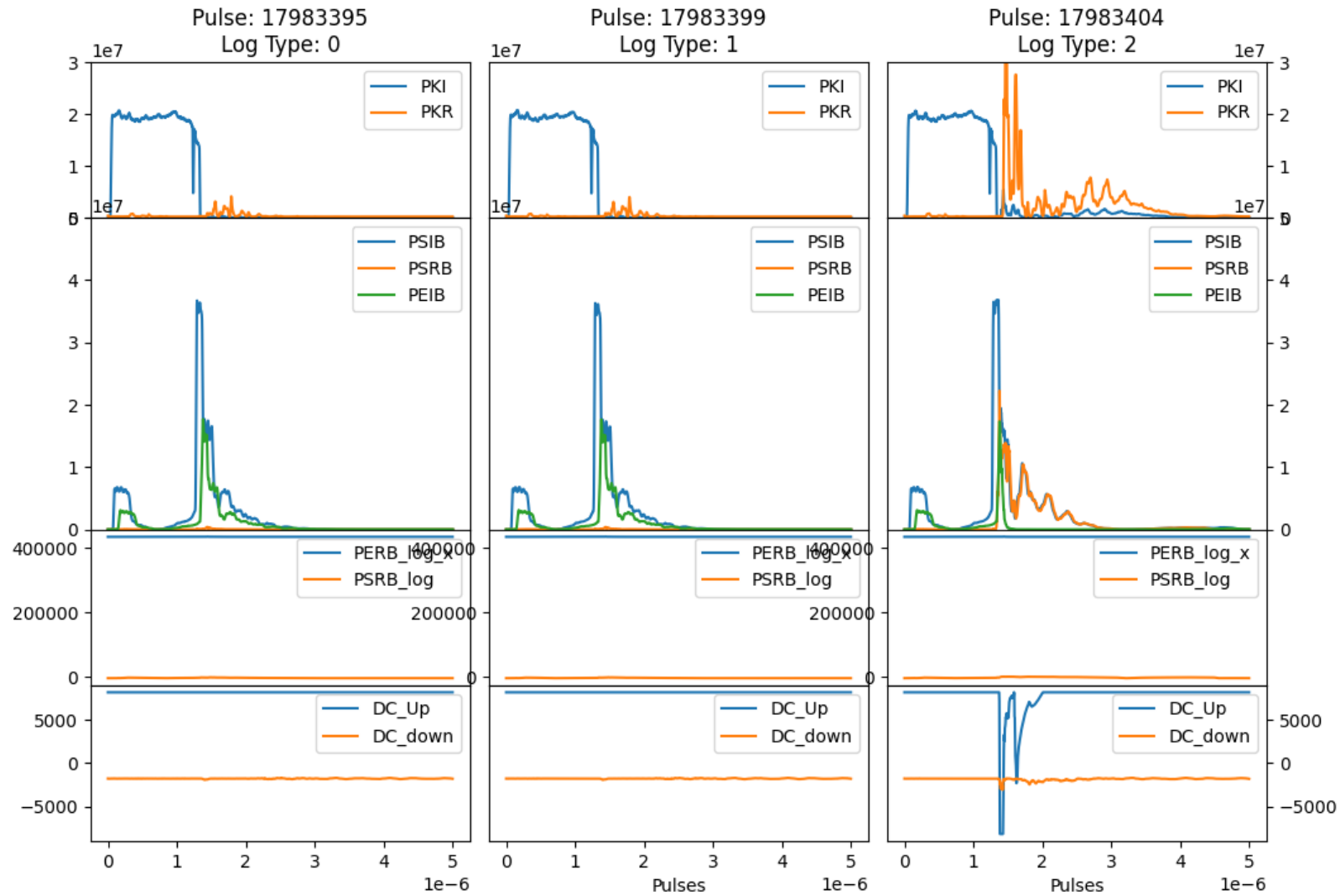
Pulse: 16839843
Log Type: 0



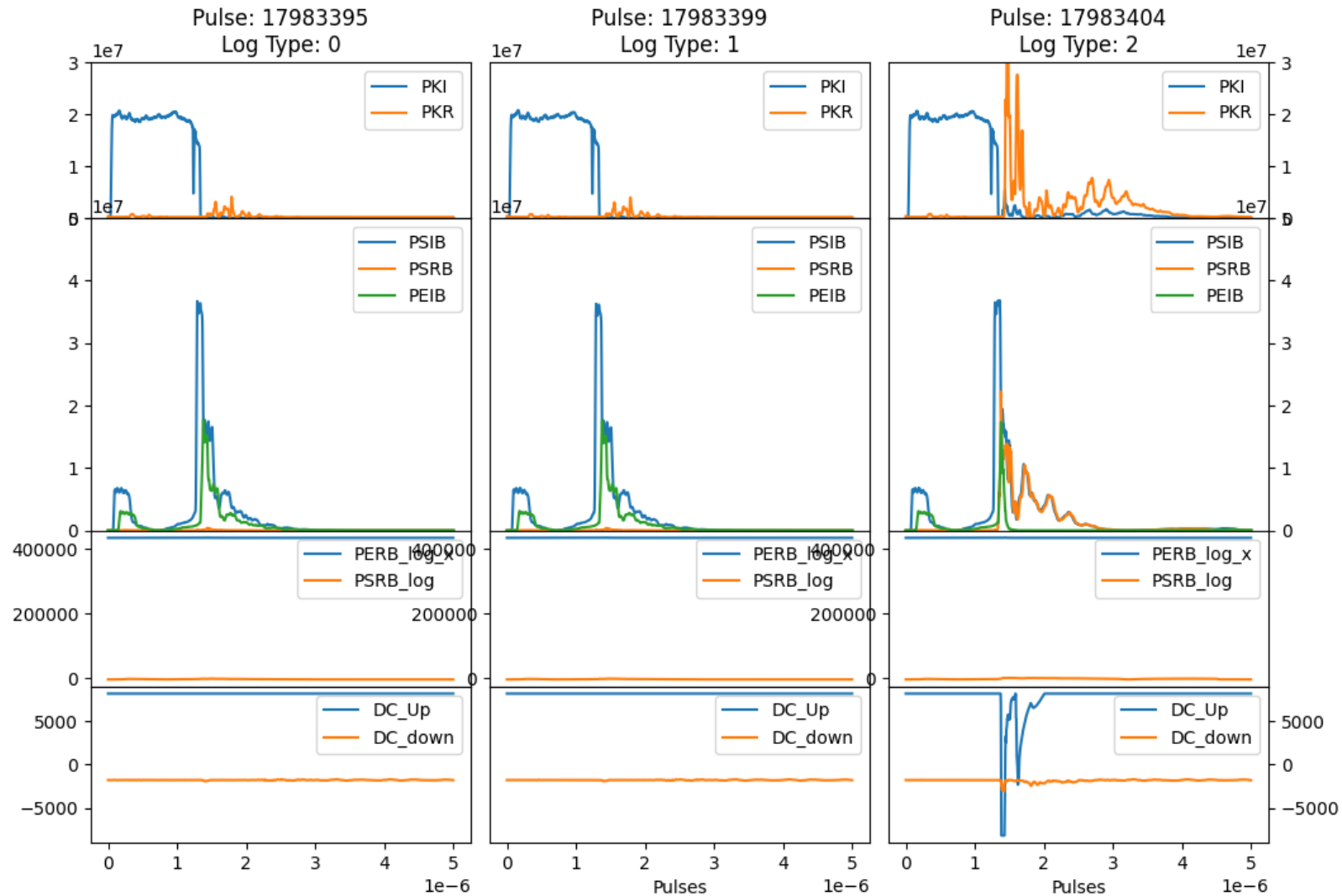
TD31 N3 N4 Structure B- Pulses 30 August



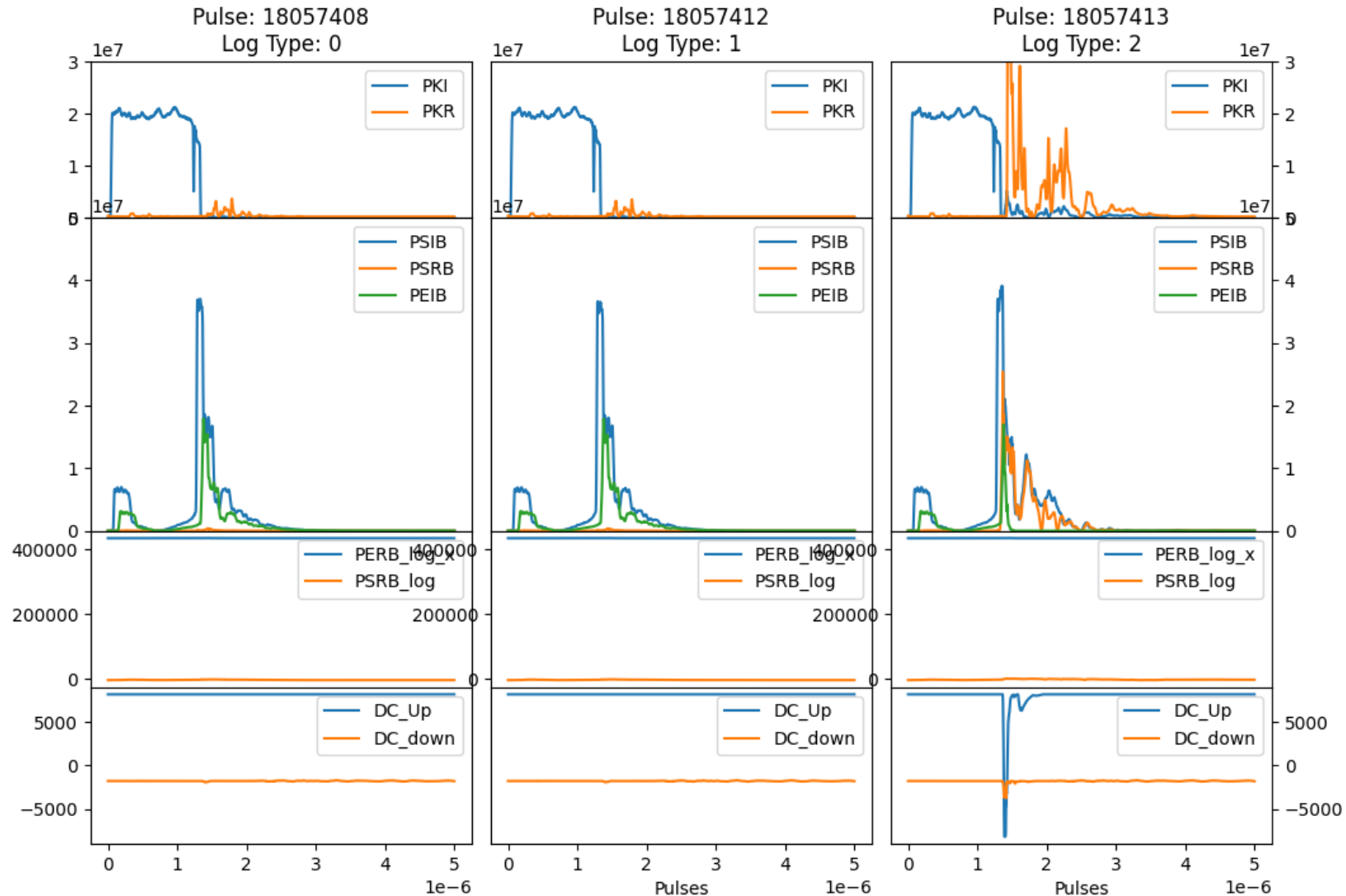
TD31 N3 N4 Structure B- Pulses 30 August



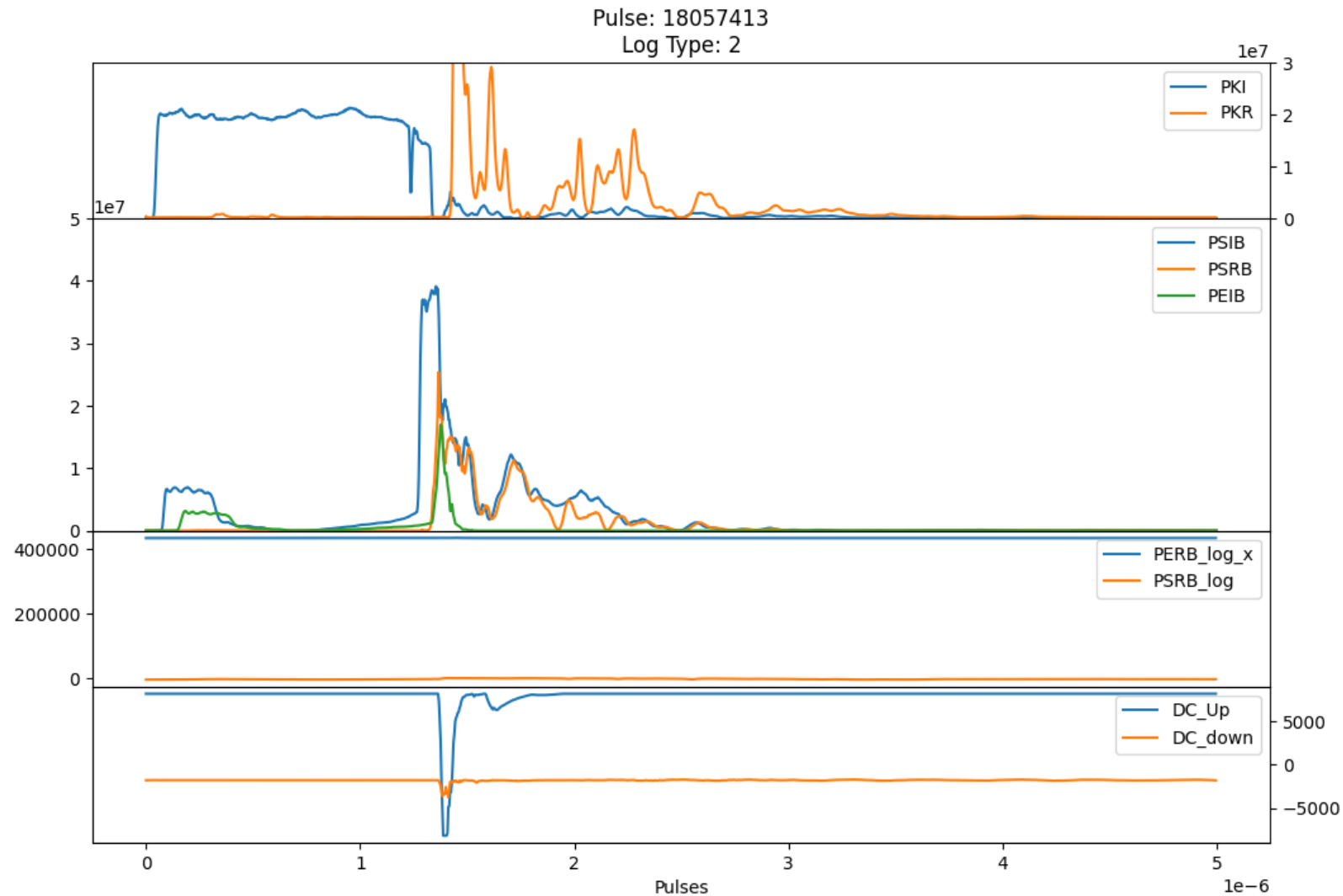
TD31 N3 N4 Structure B- Pulses 30 August



TD31 N3 N4 Structure B- Pulses 30 August



TD31 N3 N4 Structure B- Pulses 30 August



XBox2 – Pulse count

```
File: EventDataA_20240714
579806759
580300045
File: EventDataA_20240715
0
308033
File: EventDataA_20240716
0
623390
File: EventDataA_20240717
624148
1225387
```

```
File: EventDataA_20240829
15548504
16841140
File: EventDataA_20240909
0
147631
File: EventDataA_20240910
147631
154865
File: EventDataA_20240911
154865
752189
```

- **Problems with PXI and Pulse Count reset**
 - Has this ever happened before?
- **15th July**
 - Emergency stop – PXI off
- **2nd September**
 - Electrical cut – PXI off
- **Need to readjust pulse count manually**
 - Not possible via Python (not allowed)
 - Maybe possible with LabView code

X-Box 3: HEK measurements

- **Operative now! More or less...**
- Changed also the solenoid power supply
 - „Fixed problem“
 - The installed SPS may be faulty
- **Vacuum is 1.7E-7mbar**
 - Leak test



- **In the meantime...**
 - Plan to calibrate all the lines for the test (Drive, KLYFWD and KLYRFL)
 - Plan to calibrate temperature sensors
 - Installation of bigger flowmeter for collector (in range)
 - Installation of klystron E37123 in modulator B
- **Visit from Scandinova 14th October**
 - Offer to come and do calorimetry (Kevin)
 - Calibrated calorimeter (custom made).
Accuracy:
 - flow meter is $\pm 0.8\%$ of reading, $\pm 0.1\%$ full scale
 - temperature sensor is $\pm (0.1C + 0.17\% * T)$



home.cern

X-Box 2: Reminder on BD classification

