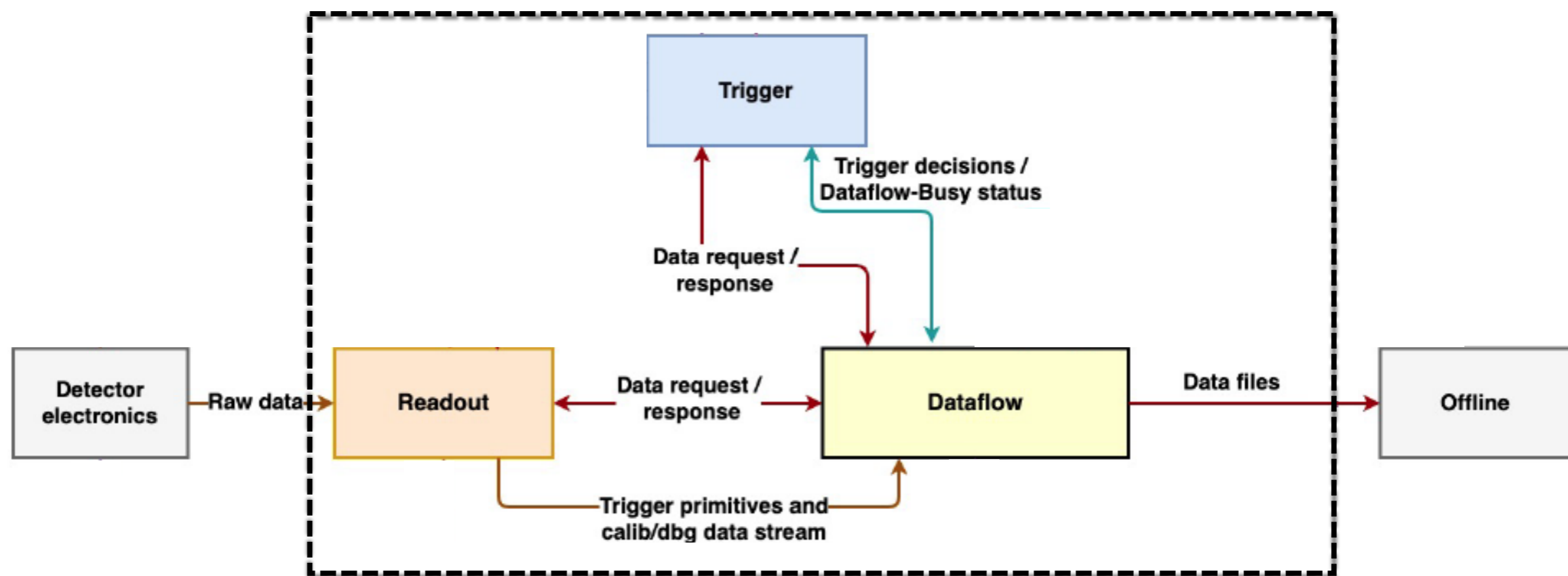
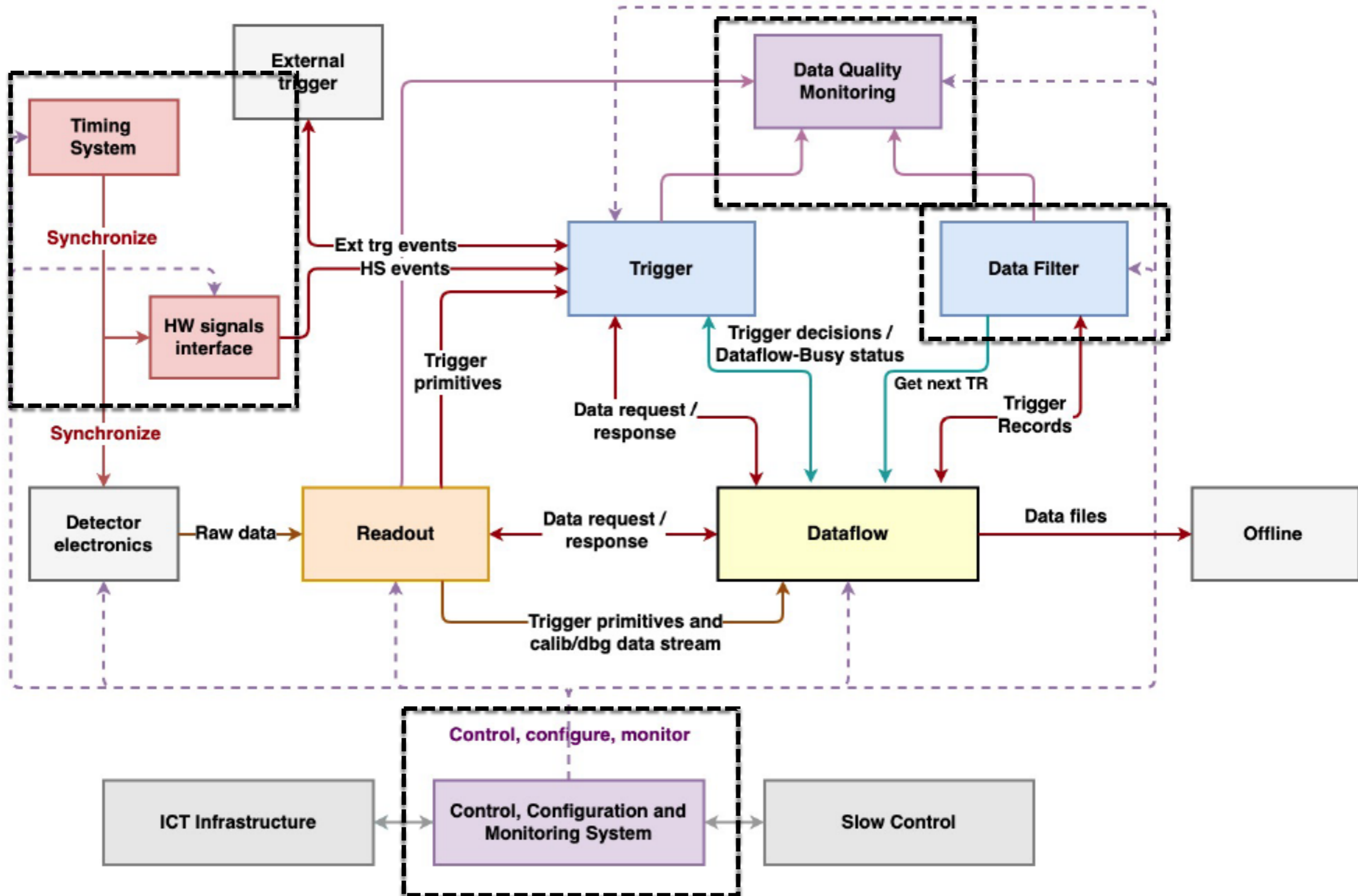


WP2: DAQ Overview

Simon Peeters
DUNE UK meeting, 2021.01.18

DAQ scope

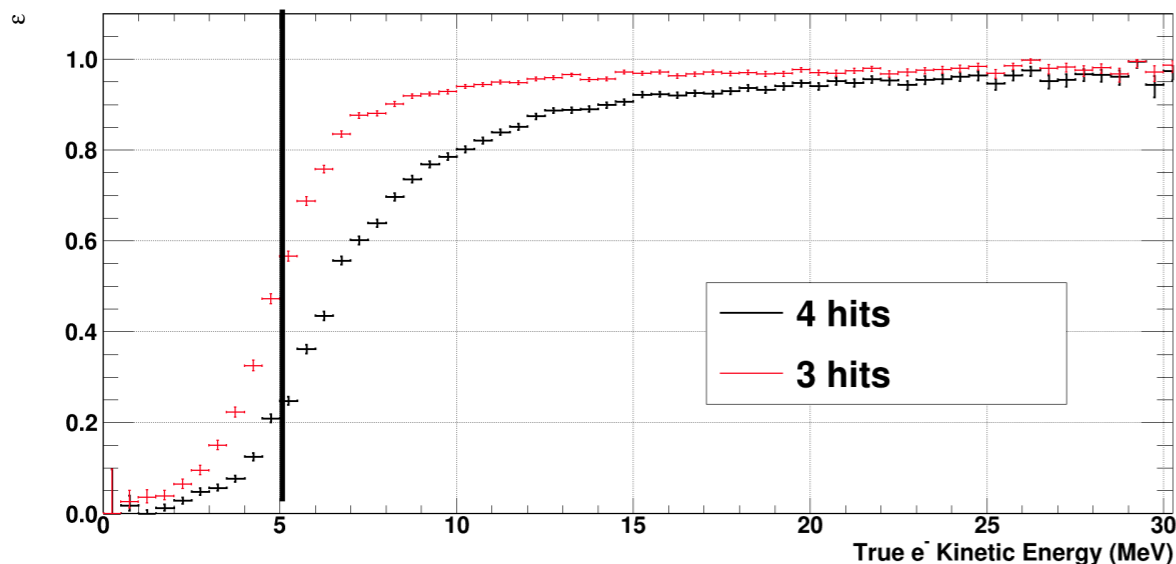




- Simulation of DAQ for LArSoft
- Understanding the DAQ response
- Development of trigger algorithms
(focus on supernova and solar neutrinos)

Trigger efficiency

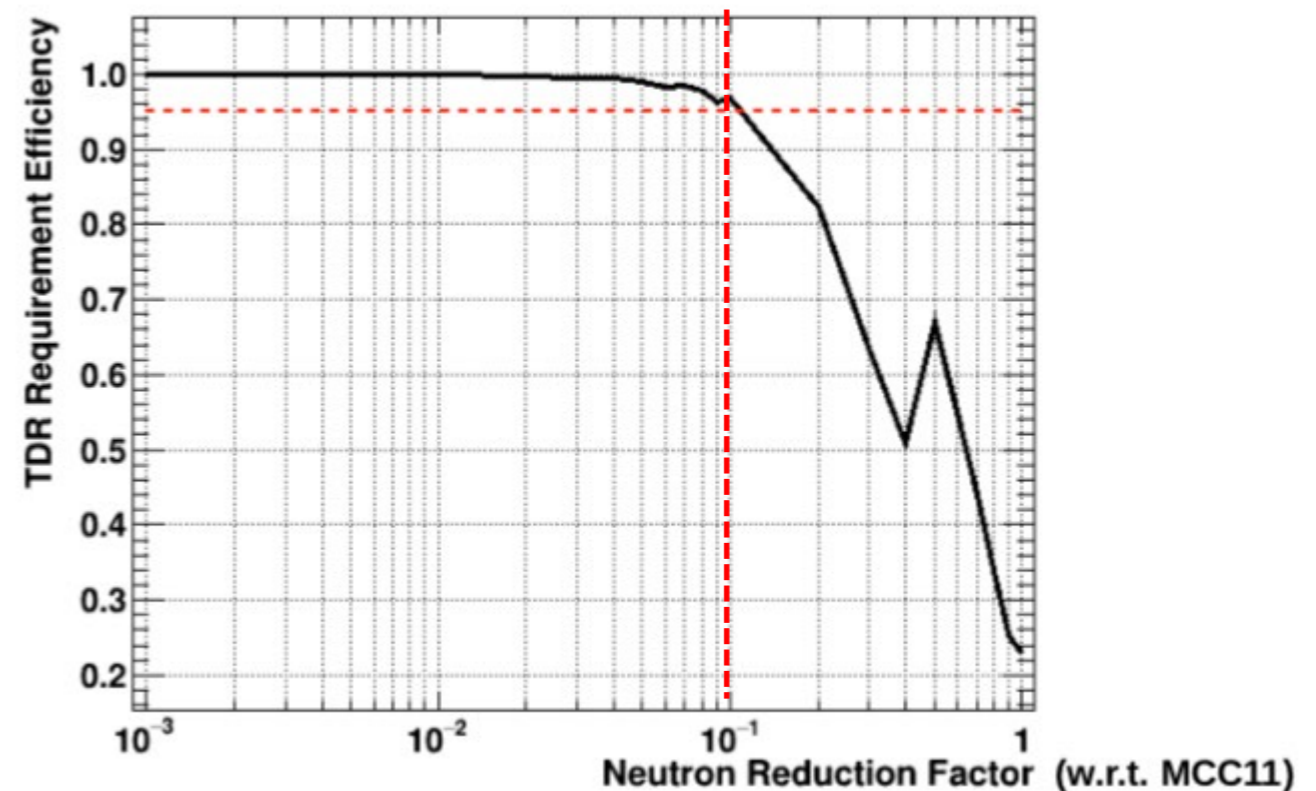
50% at 5 MeV



(Thiago Bezerra)

SN requirement

(understanding of backgrounds!)



- Far detector module 1 (Horizontal Drift)
- Far detector module 2 (Vertical Drift)
 - Bottom electronics same as Horizontal Drift
 - Top electronics different (ethernet read-out, different timing)
- Near detectors
(mostly lower bandwidth, TCP/IP readout)
 - SAND
 - ND-GAr/TMS
 - ND-LAr (can now be read-out by ND DAQ in principle)

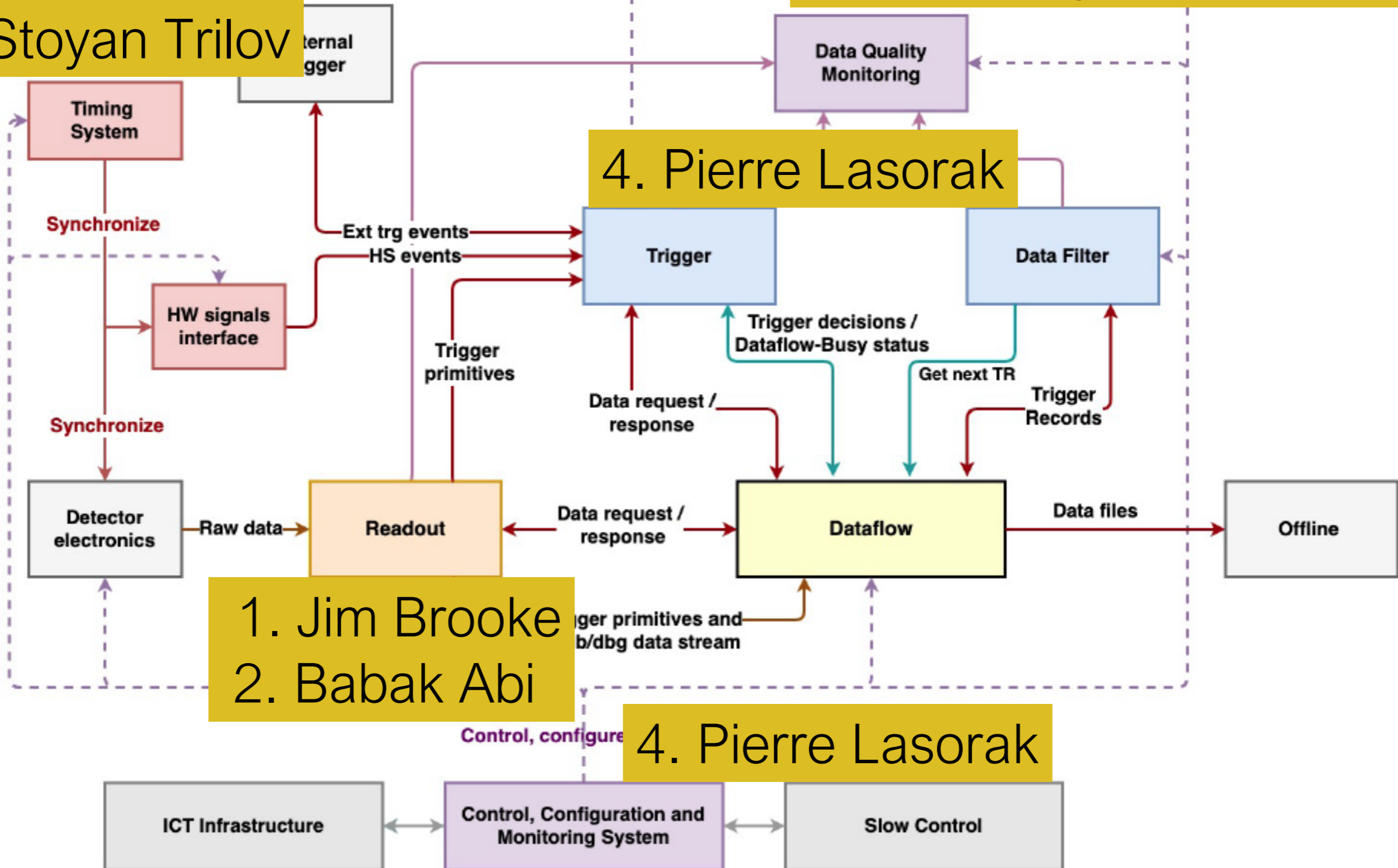
3. Stoyan Trilov

5. Juan Miguel Carceller

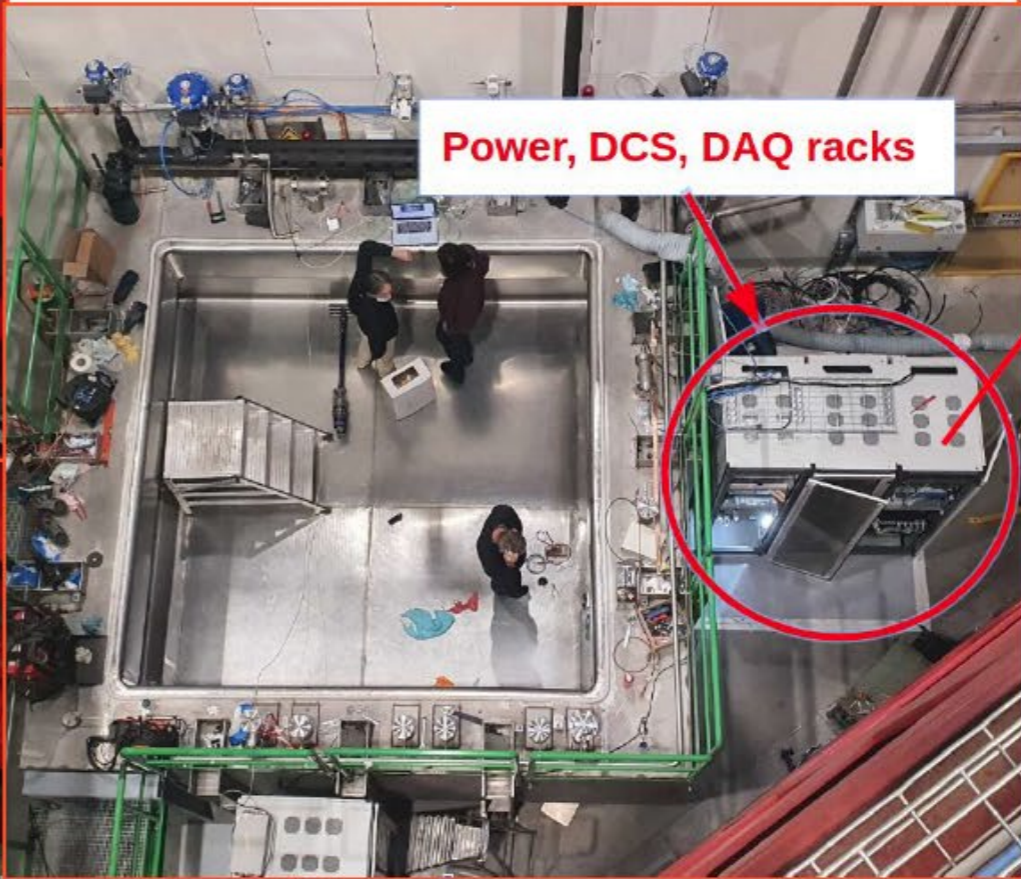
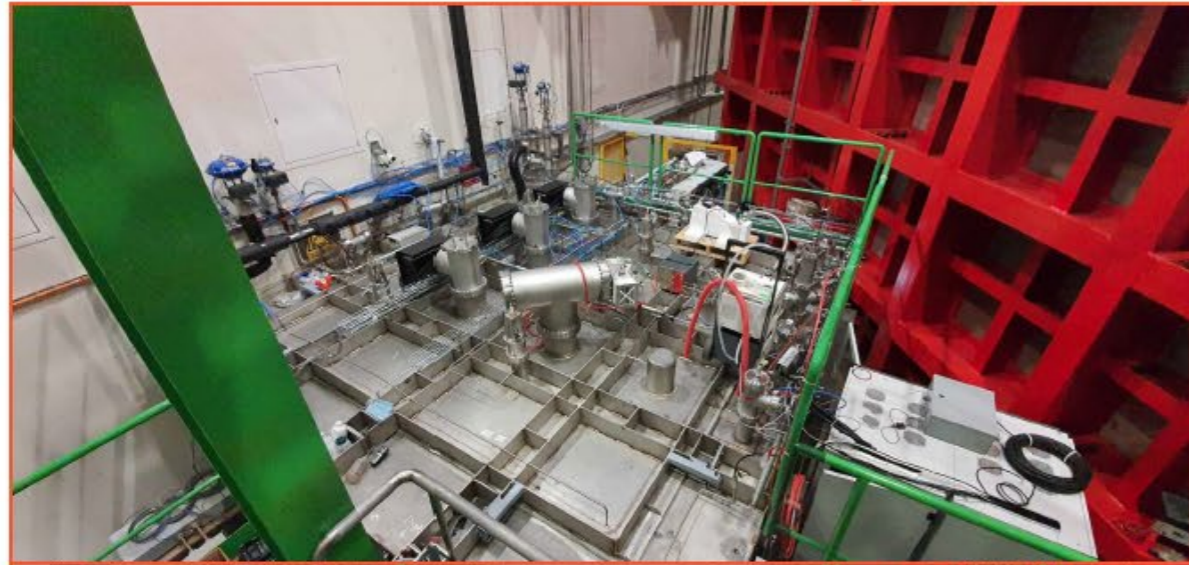
4. Pierre Lasorak

1. Jim Brooke
2. Babak Abi

4. Pierre Lasorak

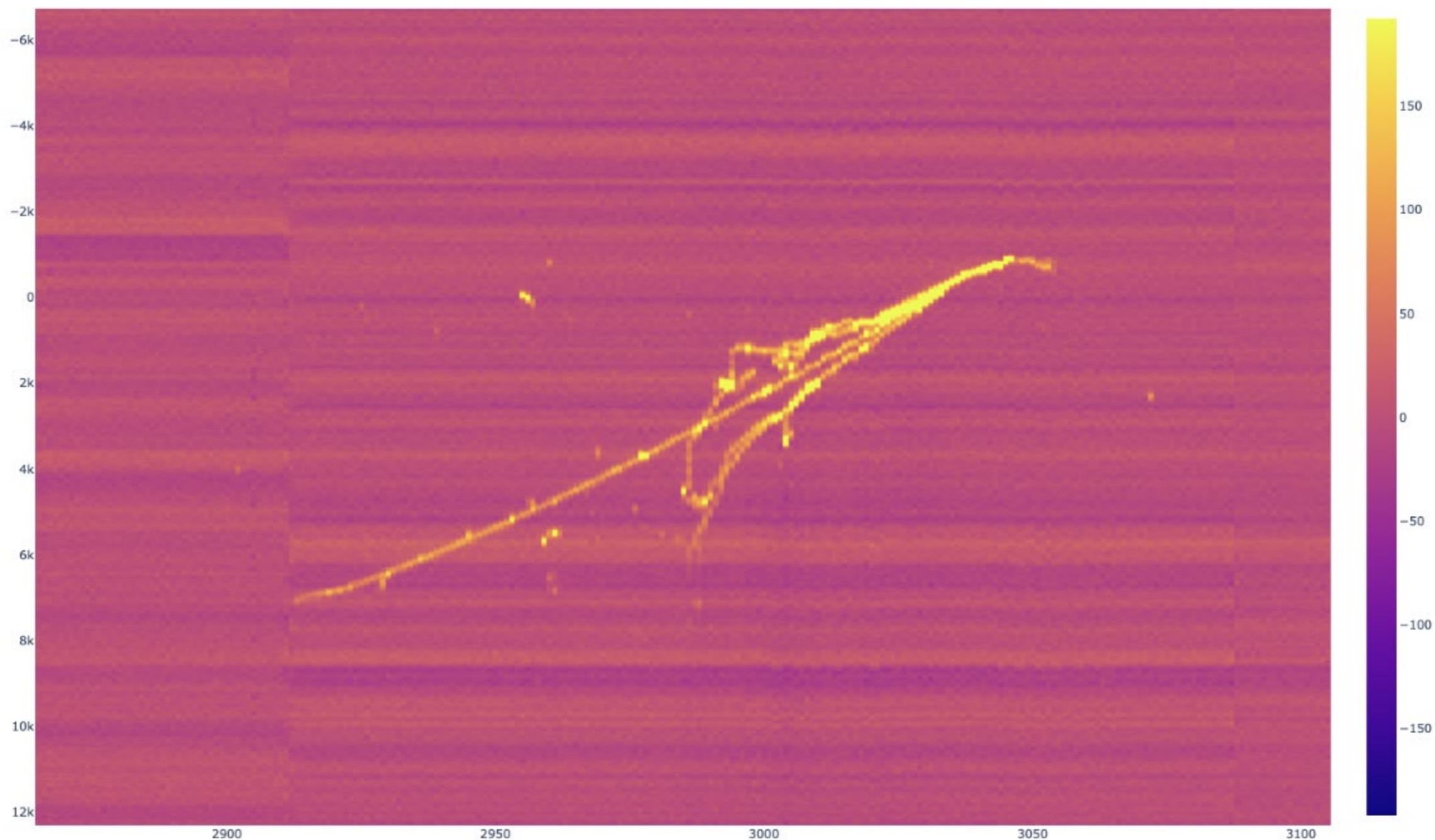


VD ColdBox in pictures



@CERN

Z-plane (offset removal), A - A: Run 12363: 45



Self triggered event (Phil, Thiago, Charlie, et. al.)

- @CERN: Vertical drift cold box: 4 runs this year
- @CERN: Horizontal Drift ProtoDUNE-II in preparation:
 - March: test APAs in HD cold box
 - August: prepare HD ProtoDUNE-II DAQ
- @FNAL: IceBerg is starting up again
 - Will run with new electronics and integrate photodetectors
 - Test deployment of DAQ software

Loads of fun stuff to do for DAQ in 2022!