BCM status

Alexandre Camsonne

DVCS collaboration meeting
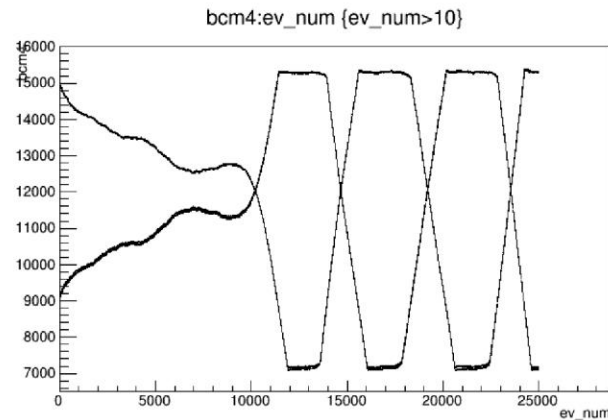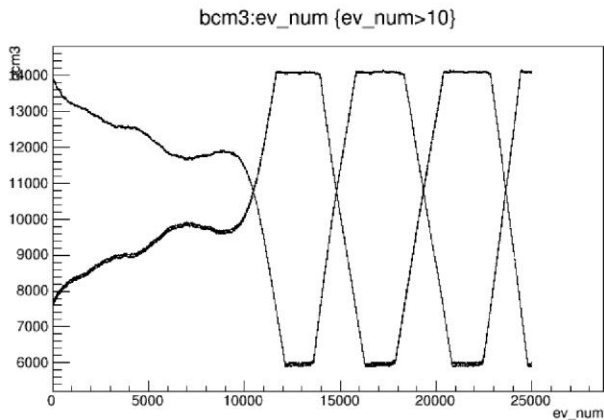
January 18th 2016

Current status

- 1 MHz receiver
  - Up x1,x3,x10
  - Down x1

- New receiver
  - Up
  - down
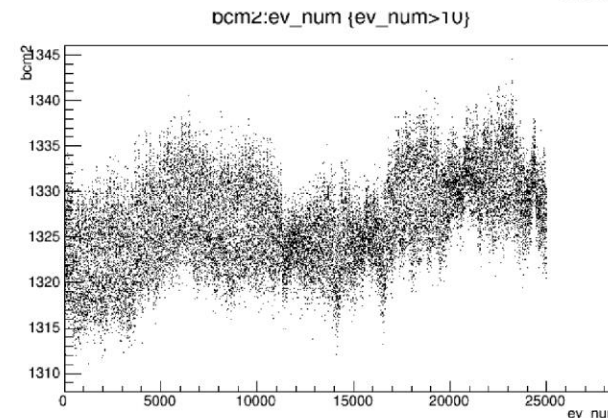
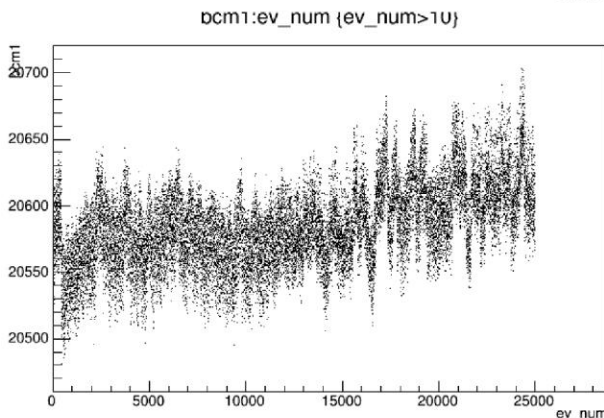# Additionnal beamline equipement

- 2 additionnal triplet XYQ ?
  - Parity DAQ
  - EPICS

- Not in HRS data stream besides EPICS, can be used to cross check or try to send to scalers (not sure if there are enough cables)

Fall run
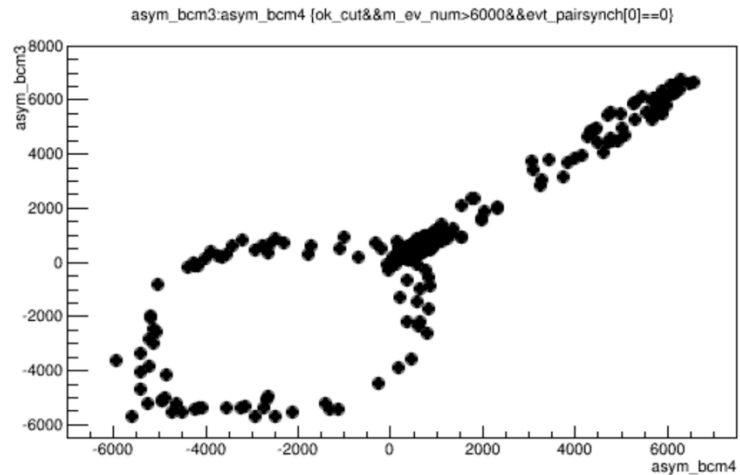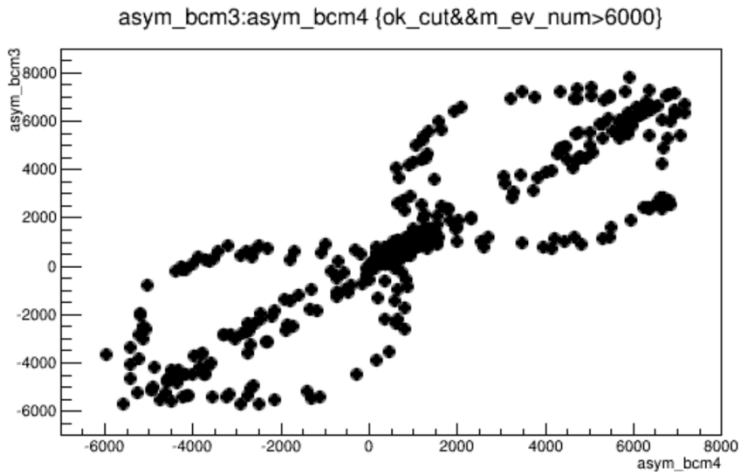
BCMs: run 2159

1 MHz

new Musson receivers

- This run was at ~40uA and 240Hz helicity flip rate

- While the new BCMs seems to show some stability they are considerably noisy

Fall run

BCMs: old 1MHz system

asym_bcm3:asym_bcm4 {ok_cut&&m_ev_num>6000}

asym_bcm3:asym_bcm4 {ok_cut&&m_ev_num>6000&&evt_pairsynch[0]==0}

- This system showed some odd oscillations: https://logbooks.jlab.org/entry/3368166 (older run)

- This was not studied in detail (they are in the data stream for all the runs)

UNSER

- UNSER
  - Control works
    - Control source
    - EPICS
  - Scaler not working (most likely unplugged at VtoF)

BCMs: TODO

- The new Musson triplets were not working for this fall (they just required a firmware update and we hope to have them up and running for the spring)

- Understand what were the problems with the old 1 MHz system (optional?!)

- Make sure the noise on the new BCMs is not coming from our DAQ

  - measure the pedestal width without beam/without cable and compare to what we had during the run

- Work with Musson to make sure the new receivers get debugged before the spring run

Plan

- Test with source to check linearity range of current setup
- Take linear fan out
- Redo source test check everything is working fine
- Fix unser
- Add Parity receiver in EPICS