

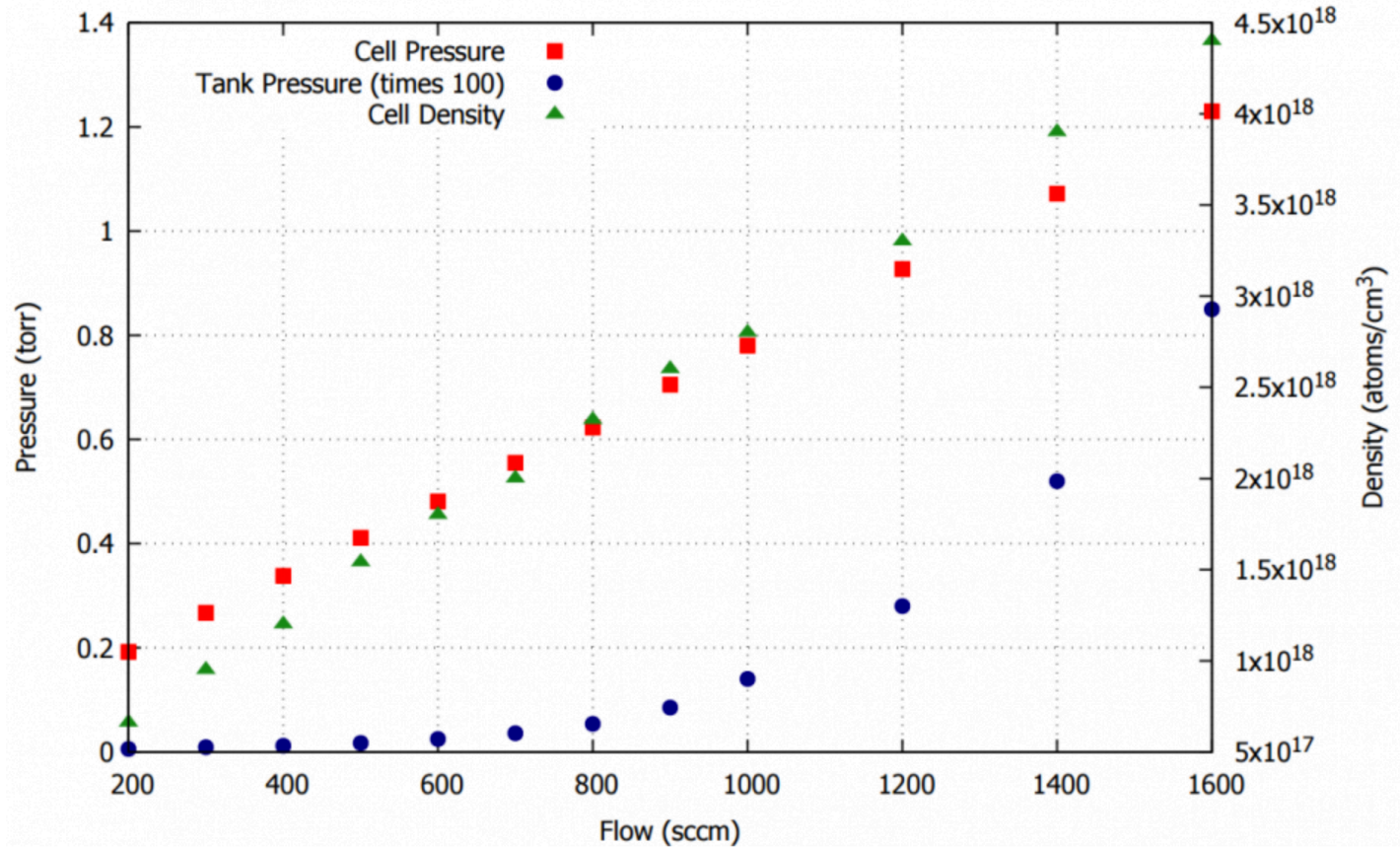
PRad RC Report

for the week
May 16 to 23, 2016

Beam Accounting and Status

- ✓ Friday, May 20:
 - ~ 5 pm, first beam in Hall;
 - beam tune up 11 pm;
 - From 11 pm HyCal+GEM checkout/equalizing started;
- ✓ Saturday:
 - very quite and nice beam;
 - few “controlled access” for electronics;
 - One major access for engineering (noon to 2 pm) ;
- ✓ Sunday
 - Continue HyCal+GEM checkout/equalizing
 - Few “controlled access” for electronics
 - One major access for engineering (from ~ noon to 3 pm)
- ✓ Overall, very stable, reliable and productive beam throughout the weekend!

H₂ Gas Flow Target

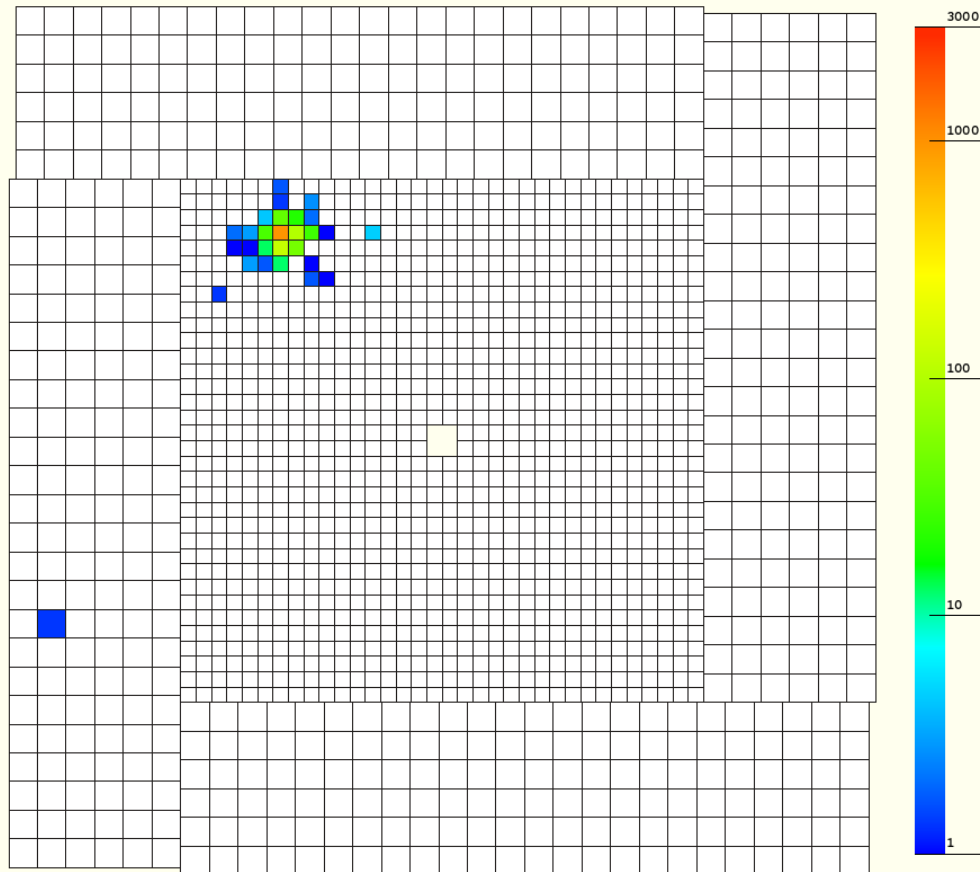


- ✓ add one turbo as backing pump;
- ✓ add one more roots blower;
- ✓ ran with H₂ gas at 15 K
- ✓ Differential pressure of 1:1000 has been reached

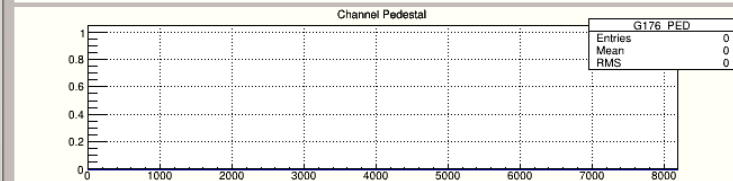
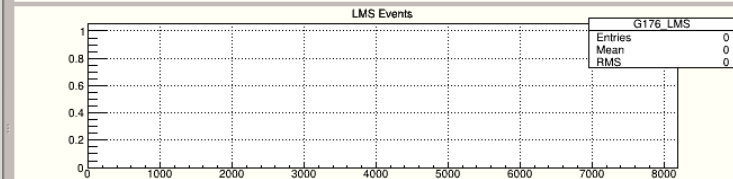
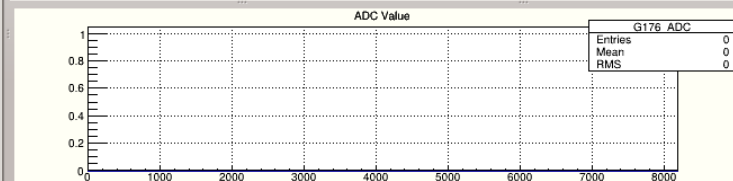
Target group

HyCal Checkout and Gain Equalizing (single-position events)

File Online Mode High Voltage Tools



Module Property	Value	Module Property	Value
Module ID	G176	Pedestal	321.892 ± 2.17
Module Type	Pb-Glass	Event No.	6
DAQ Address	C6, S23, Ch0	Energy	0 MeV
TDC Group	G5	Fired Count	2
HV Address	C1, S0, Ch41	High Voltage	0 V (OFF) / 0 V



Event # 6 Total events: 24144 Spectrum Settings
Module Hist Energy View No Annotation

Reading data from file /home/clasrun/PRad/prad_000588.evio.30
Parsed 24144 events, took 18543 ms.

Current Data File: /home/clasrun/PRad/prad_000588.evio.30

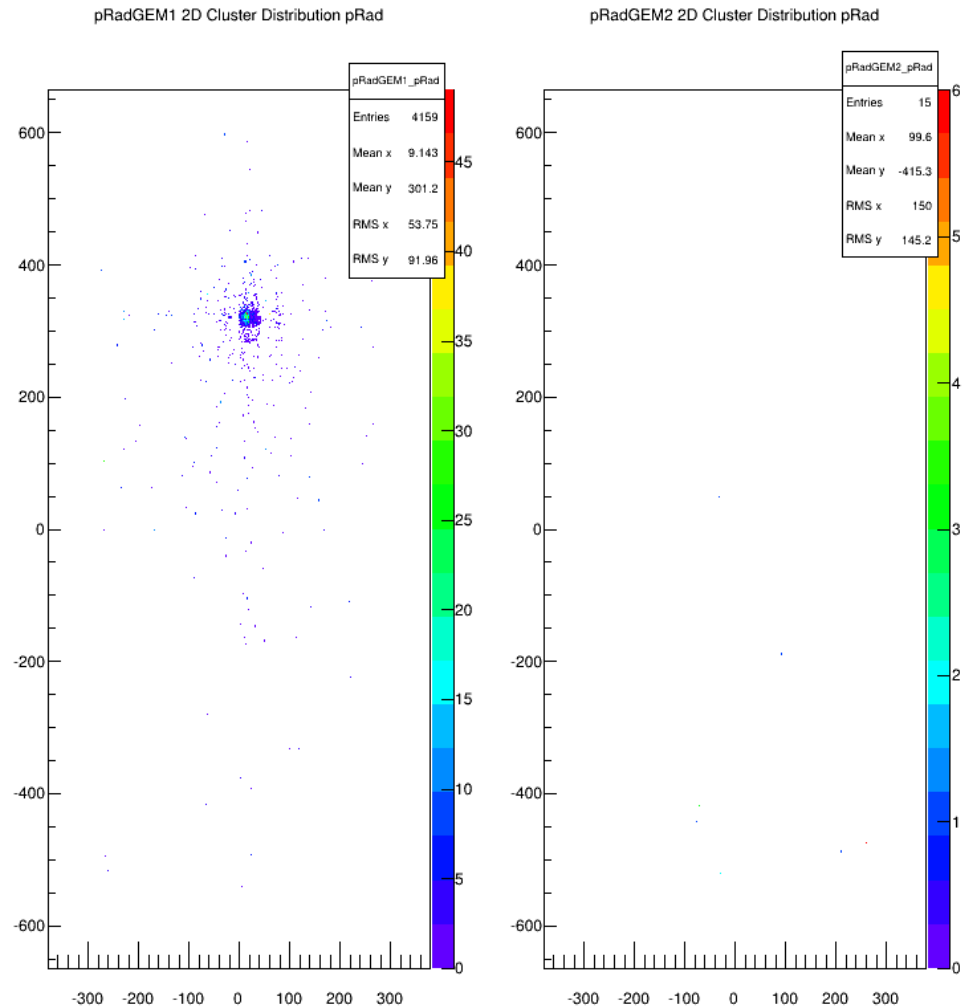
GEM Detectors

- ✓ Induced el-magnetic noise reduced to a tolerable level;
- ✓ GEM DAQ was incorporated in the Hall B DAQ;
- ✓ DAQ needs some more tune-up work;
- ✓ Took some initial data with photon beam.

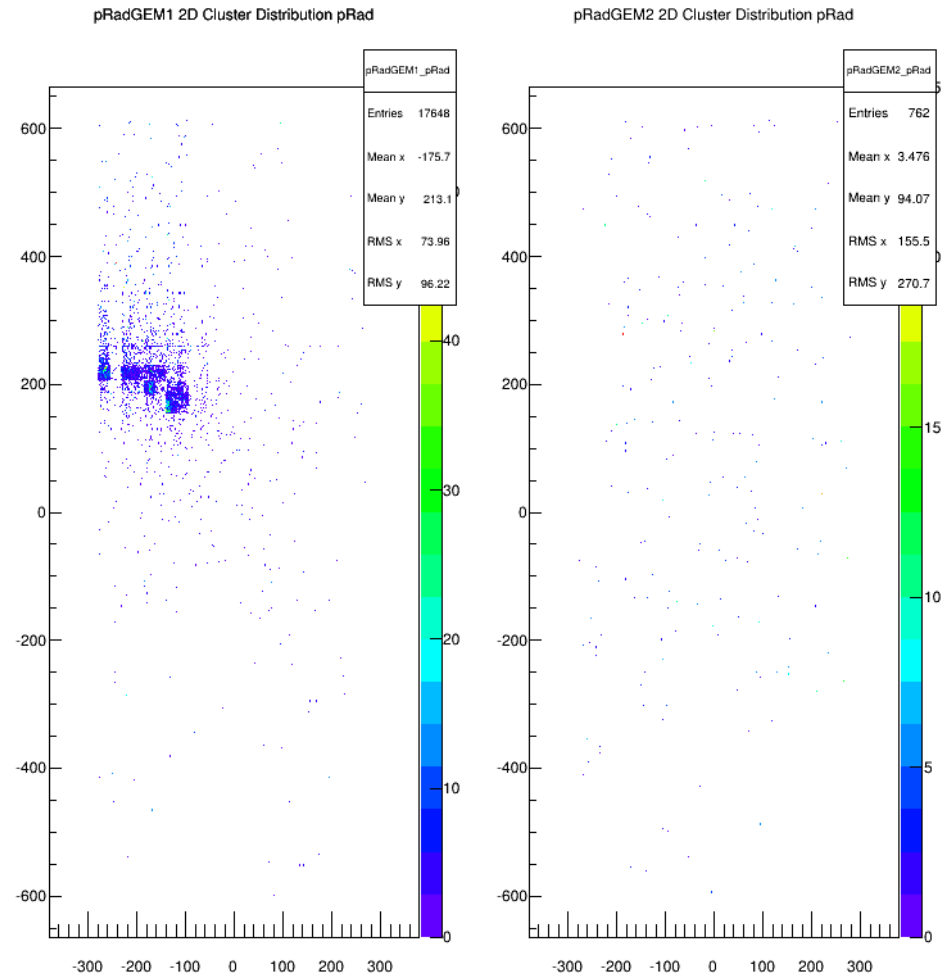


GEM Detectors (single-position events)

- ✓ Induced el-magnetic noise reduced to a tolerable level;
- ✓ GEM DAQ was incorporated in Hall B DAQ platform;
- ✓ DAQ still needs some more tune-up work;
- ✓ GEM was included in the Checkout/Equalizing procedure with beam.



GEM Detectors (multi-position events)



The End

Vacuum Tank

- ✓ Installed in the beam line (Wednesday);
 - ✓ Pumps are installed, 10^{-5} level vacuum is established (Thursday) ;
 - ✓ Connected to the target chamber (Friday);
 - ✓ Target + Tank pumping started on Sunday, vacuum level: 10^{-5} torr
-
- Vacuum tank is ready for the experiment.

