

Weekly report 28.04-04.05.2018

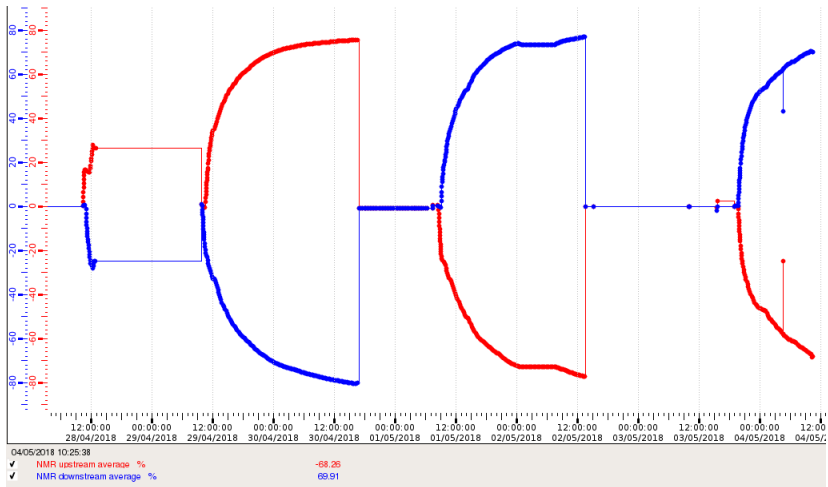
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4. Mai 2018

Target

- Temperature problems in pump room →
→ temporary fixed? by installing new fans.
Permanent fix under investigation of EN-CV
- Temperature problem of tap water (used for RF generator)
→ Will be change to raw water (performed by EN-CV)
- Problems with one heater (Fuse tripped several times)
→ switched to new outlet. → since then no problems.
- First polarization test performed successfully
but problems with cooling of RF → investigation ongoing by EN-CV
- Magnet commissioning finished on Thursday evening.
→ Polarization ongoing and rotating to dipole is planed for Saturday.
- Trim coil optimizing ongoing

NMR



Trigger

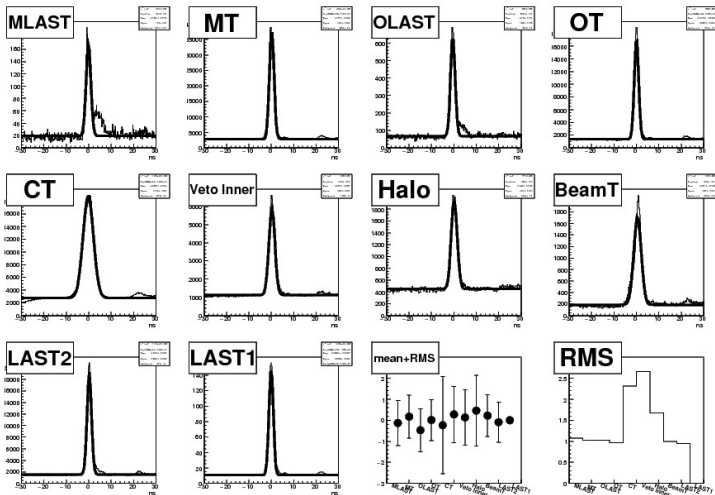
- New HV set (according to high voltage scans)
- DY-Matrices loaded for Outer/LAS
- Timing of matrix performed
- Bad cable on prescaler for LAS and H1 splitter fixed
- Timing of individual triggers
- Trigger rates for MT+LAST, OT+LAST and LAST2mu connected to the SCMSC1.
- Setup OT with delayed veto on scaler in order to measure the veto dead time for the OT.

ToDo's:

- Majority Veto on H1
- Veto Timing
- Switching second plane of BT to SciFi3
- debugging and fine tuning

Trigger Timings

Run 282499



- Installation of beam telescope completed
- Position test performed with pion beam and chicane in place
 - FI03 is now 3mm towards Jura with respect to the survey
 - FI15 is now 6mm towards Jura with respect to the survey
 - FI04 is at the 0 line
(i.e. 24 mm towards Jura with respect to the survey) it is 3 mm high
- BeamMonitor is working
- Problems with PMTs of FI15 while solenoid is on
→ test with mu-metal shielding today.

ToDo's:

Threshold scans, first T0 calibration

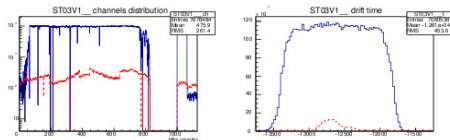
Move FI01 to transversal position?

- All cables are prepared and pulled
- Characterisation (Gain) of all PMTs is performed
- Missing mechanical parts are produced in Illinois / CERN or Warsaw
- Electronics assembled
- ifTDC arrived at CERN
- Work on firmware and test of ifTDCs will be performed by Igor starting at 15th of May

Full installation will be performed during MD on 06. June or 18. June.

Who will perform the pressure scans ?

- Pedestral scan performed on 18.04. and loaded at 20.04
- Latency Scan performed on Tuesday night but still not loaded

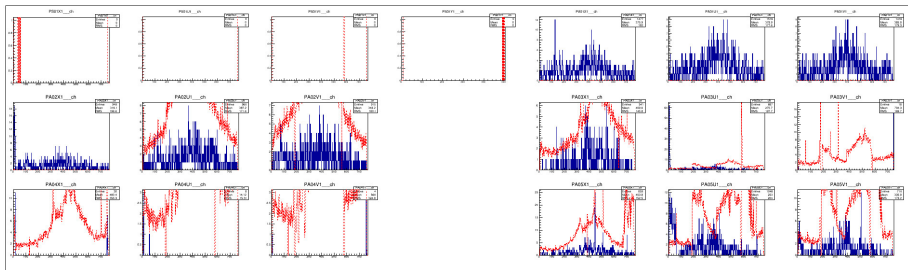


- Periodic noise on ST03V plane
- Water is refilled by warm (50deg) cooling water (return of SM1)?
- The ST03 NB connector (and the cable) had gotten hot, with some brownish signs of burning → change to ST03 cable and connector
- Exchange of front panel of LV against spare one since one fan was broken → timeout error.
- Exchange back old front panel and exchanging fan →

Power cut in EHN2 on Jura side caused by work on Straw LV module
→ Several equipment affected (DCs/Straws/GEMs/ECAL2/MuonE)

Noise came back after a few hours → further investigation needed.

MWPCs



Still problems with PS01 → Intervention will be performed on next MD.

Persistent problems on many SRCIds - ongoing investigation.

Micro Megas

- latency checked by Damien on Tuesday
- pedestals scan performed during MD

2X HV trip: does not hold the nominal HV any more

D. Neyret:

MP2X drift HV got high current after having been ok during one week at 1420V, so finally I set an HV value to 1320V which should be stable hopefully. In case of high current again, instead to decrease slowly the HV value a good strategy is to totally cut the drift HV for a few minutes, then to put it back. The origin of this high current is still not understood.

Has to be clarified before physics start → Y. Bedfer
Tripped again tonight with the new settings.

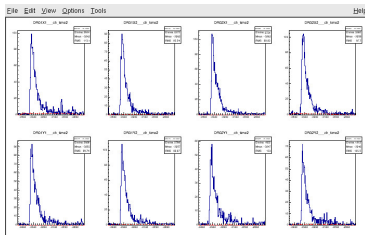
- Threshold scan of DC5 performed with different beam conditions.
- Exchange of RJ45 coupler on patch-panel (DC4)
- Still problems with SRCids 258 and 260
 - #260, port #2:
 - + Error rate is well below 100%.
 - + Can be recovered by re-loading, possibly several times in succession
 - #258, port #7:
 - + Error rate = 100 %.
 - + dis-/re-connection + spray, at the CATCH front-panel, at the patch-panel, inner as well as outer, exchanging the RJ45 coupler.
 - Does not help...

Plateau scans have to be performed (Weekend)

No news ... ?

New RT calibration since the old one is from pre 2010?

- HV was not connected
- Latency scan performed

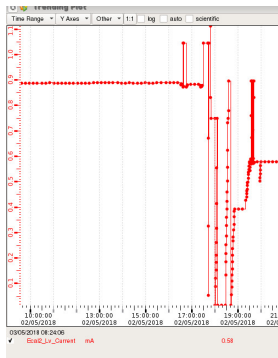


Situation much better after Maxim intervention. Now we can see hits correlated in time.

But still problems with complex readout → Multiplexer are tested on MuonWall. Therefore SRCid still missing until Sunday.

Calorimeters

- ECAL2 HighVoltage Unstable.



- Suffers from power cut but fully working again.

- some problems with PCI/DMA Errors and Switch errors
- pccore11 takes very long after restart to boot up again

SrcID 800 MT-GADC excluded from DAQ

Integration of Crosspoint Switch ?

Magnets / Beam Line

- SM1 & SM2 stable conditions
- HALL probe (exchange of probe box)
- Leakage of two jacks for chicane
→ Intervention and maintenance by EN-EA on Wednesday
- Beam files for:
 - $\mu^{+/-}$ without chicane
 - π^{-} with/without chicane
 - alignment

available

Final beam steering has to be done.

Works stable during the week (as always)

- Problems with DIM Servers from SPS for Beamline
→ SPS switched them back to the version of last year
- New alarm levels for NMR probe after installation of new NMR-Box



Cooling:

- Tap water: warm since something next to it get warm
- Demineralized water: We had a failure of the demineralised water cooling station this morning at 8h19 (Wednesday) on leak detection. The cooling station was restarted after without problems.
- Cooling of BMS barracks not working → Investigation ongoing by EN-CV.
- GEM AC not working

SUSI system:

- Permanent open since Thursday last week
- Valid dosimeter close the doors / invalid dosimeter open them again

Don't use your dosimeter at the moment to open the area all doors are open !

Proton Radius

- Refill of TPC back to 8 Bar on Friday
- Energy calibration of TPC performed on Tuesday
- Problems with ifTDC from time to time

Smooth data taking with different Beam Conditions
Merging of Silicon and TPC data ongoing

About 3E9 events collected so far!

Intervention during MD:

- Exchange of current calorimeter against a tungsten calorimeter
- Installation of two new trackers in Beam telescope (Silicons)

Thanks to all the shifters and detector experts!

We are about to start physics data taking!

Check your detectors and perform last works.

Good luck to Caroline.