

Weekly report

11.05 - 18.05.2018

▶ start-up of Drell-Yan data taking

Friday, 18.05.2018

COMPASS weekly meeting

Annika Vauth

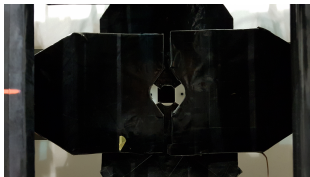
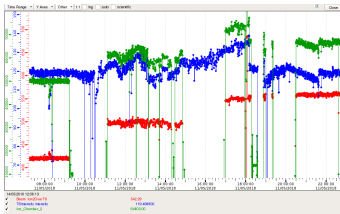


Beam & Trigger

Beam tuning 15h-20h ratio ION2/T6int improved from ~ 420 to ~ 550

Veto VI01 20h hole adjustment from 55mm to 75mm
to account for horizontal size of beam, height is still 48mm

True random 21h rate adjusted
by lowering HV and increasing threshold



Target

Dipole slow discharge Friday 23:30 (LHe filling not tuned correctly)



Detectors

RW With high intensity, 100% errors on MurphyTV
TCS FIFO full

ST03 plane V1 noisy

GEM few percent errors on GEM7-8

A.O.B.

CASTOR migration problem since Thursday afternoon very slow. Solved by CASTOR support Friday afternoon



Saturday.

Beam & Trigger

Trigger Muon beam Saturday for efficiency studies

Target

Polarising starting Saturday morning

Magnet Check status, understand what happened

Detectors

DC4 during the night HV trip, required power cycling

A.O.B.

Network switch near SM1 had to be restarted during the night



Sunday (1).

Beam & Trigger

Trigger Low intensity pion beam Sunday morning for efficiency studies

Drell-Yan nominal beam starting after noon 500mm target, 120E11 on T6

Detectors

RW Still missing, 100% errors on MurphyTV

MWPC First missing card on PS01V, then one PS01U

ST03 plane V1 still noisy!

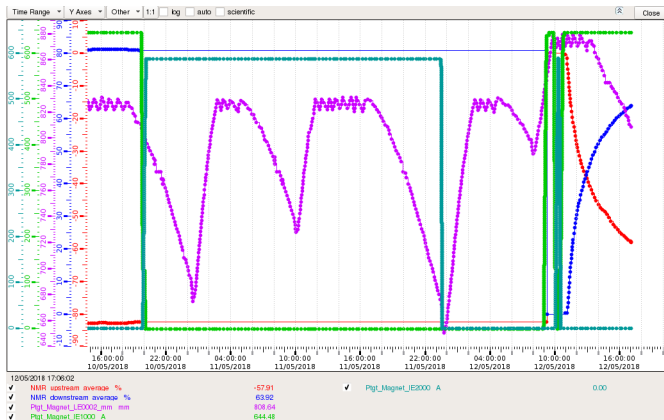
GEM few percent errors on GEM7-8



Sunday (2).

Target

Polarising until Sunday noon \rightarrow \sim 80% polarisation



Target

Access this morning to remove target holder plate (2 mm Al)

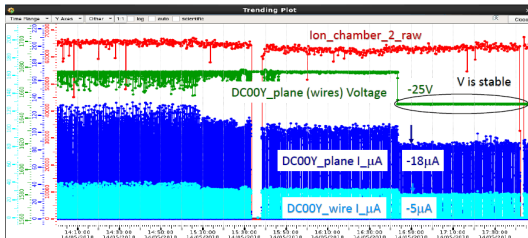
Detectors

DC0 morning: Missing channels U1, cured by LV cycling
evening: voltage reduced by 25V prevent damage by high current

GEM errors increased, masked ports in DB → no more GM08XY

RICH error on RICH-MAPMT srcID 507 - problem on FE?

DC00Y_Plane and_Wires Voltage lowered (1675V ==> 1650V)



Beam

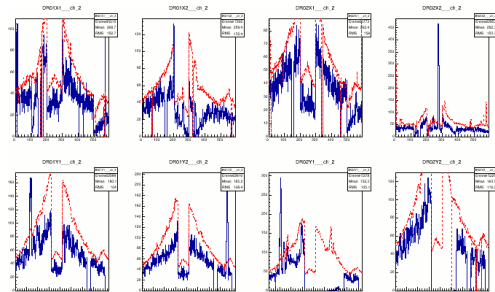
No beam 21:00-21:30, 22:10-23:55, 1:17-??! ☹️

main problem: sparks on extraction septum

Detectors

RW time window adjusted - detector back

tested before beam was gone



A.O.B.

PRM run is over! Start flushing the TPC with He



Wednesday (1).

Beam

Beam back around 18h needed to wait till 18:30 to end access

Access for MWPC shortly afterwards

Target

Polarising from 5:45-17:15 (was -76.5% in upstream cell and +75.9% in downstream cell after polarising -80.5% in upstream cell and +79.7% in downstream cell)

Detectors & Trigger

Trigger coincidence matrix needed reload after MD, no Veto dead time reading until 22h

GEM ADC re-flashed, GEM08XY working again

RW some FE problems fixed, central parts DR02Y still missing

MWPC lots of work during MD and after, all planes back in operation after 22h

MW1 errors on MTV starting 22h cool looked okay



A.O.B.

air condition maintenance works in 888 done in the morning

PRM run is over! TPC craned out



Beam conditions / data taking

No beam from $\sim 10-12$ 10 min access for SciFi-3

Alignment taken from 12-15

Drell-Yan during the rest of the time

Detectors

MW1 errors went away around 6h

SciFi SciFi-4 latency adjusted

SciFi-3X LV supply exchanged but still noisy

MWPC PS01 problems starting around 13h had to exclude 460 port 7

PA03U1 channels missing parts of the evening 452 port 15

DC almost all srcIDs errors in the evening,
recovered all but one 257 port 14, on DC00U1



Beam conditions / data taking

Drell-Yan data taking

no beam from 9:10 - 10:20 "No beam for 1 hour. CPS access"

Detectors

DC missing most of DC01U2 in the morning,
fixed along with DC00U1 257 port 2,3, 14

SciFi 3 access to change LV supply. Looks good!

A.O.B.

Network power switch near SM1 restarted in the night

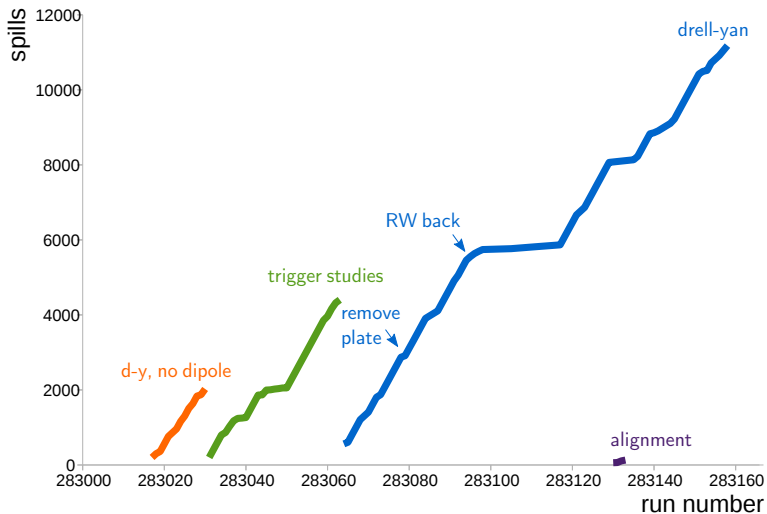
Inxpool25 for DC0-1 needed rebooting = threshold module, DIM13 error

CASTOR migration problem is back ☹️



Data taking summary.

Recorded data:



Planning, Announcements.

Continue data talking!

Access or MD

- ▶ RichWall
- ▶ MWPC
- ▶ SciFi-3X ?

Many thanks to all the detector experts & shift crews!

Next week coordination: Oleg. Have a great week!

