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Starting up of pixelized Micromegas detectors for 2022 data taking

Damien Neyret

CEA Saclay IRFU/DPhN

TB 8/2/2022

PixelMM detectors

Status

- Worked without particular problem in 2021
- A few fuses with too small max current replaced by 7A ones, no other exchange necessary normally
- One APV replaced on MP01U
- Some problems with a few HV channels (cf next slide)
- No intervention after the 2021 run
- No (known) update on ADC card firmware to be installed

To be done for 2022 run

- Restart LV power supplies
- Check gas leak rate, then put back flammable gas mixture
- Check whole APV readout, take pedestals and noise sigmas
- Check detectors with HV
- All this to be done week 15 (11-15 April) on site and the week after remotely
- With beam: latency tuning, time and amplitude calibrations (low intensity muons including halo trigger, alignment necessary)

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Pixel MM power supplies

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LV power supplies

- 3 Wiener PS OPO40155 from pool, very old
- 2 more available at pool apparently
- Do we need to rent one from pool in case of problem ?

HV power supplies

- CAEN SY5527 crate and 4 A1821N or HN modules + 1 for DC01
- A few channels broken (3 modules with 1 each) → 1 channel powers drift electrodes of MP03U, V, X and Y through splitter box
- Modules could be replaced but risk that this happens again
- Better to add one more module to the crate, which will provide 12 spare channels
- Low availability at pool (7/2, from web page)
 - 2 A1821N
 - 1 A1821HN
- To be rented pretty soon !

Spares