CM 38 -DAQ report

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EMR cismic data

Software

- EMR readout software was extensively tested exploating cosmics.
- Some minor bugs have been discovered and fixed.

Hardware

- The EMR readout system is not stable over a long period of operation.
- Misbehaviour of some of the boards after 2-3 days of operation.
- Problems in the VRBs (custom made boards) but also in the fADCs (CAEN).
- After turning off the crate for couple of minuets the systems goes back to a normal state and runs smoothly for another 2-3 days.

The VME crate was incriminated for the stability problems. Replacement was purchased (not yet delivered from CAEN).

MLCR Hardware

Replacement of the readout computers (miceacqXX).

- 7 new computers are purchased from Supermicro.
- First one is already delivered and tested in Geneva.
- The delivery of the remaining 6 is expected within the next 2-3 weeks.
- New PCI optical interface boards are purchased from CAEN.
- The expected delivery time of the PCI boards is $\sim$ 1 month.

Development of FPGA based trigger logic.

- The development of the firmware is (looks) completed.
- For further progress I need test in MLCR.

DAQ test in April

Goal:

- Test of the FPGA based trigger logic.
- Test of the DAQ operation at 1Hz.

The plan:

- Tests of the DAQ readout through pulsar trigger. Duration: 2 days. To be done at least 1 week before the tests with beam.
- Debugging with beam, starting with low intensity beam (20 - 30 triggers per spill). Duration: 1 day.
- Debugging with hight intensity beam ($\sim$ 300 triggers per spill or more if possible). Duration: 1 day.
- TOF Calibration data taking (electron beam, $\sim$ 100 triggers per spill). Duration: 2 days.