Weekly meeting August 21, 2003

- PID detector analysis

  1. Calibration done

     For Cerenkov detectors, only one calibration for each arm but for lead-glass detectors lot of changes:

     - $1000 < \text{run} < 1510$: shower-calib-r1281.dat
     - $1511 < \text{run} < 1531$: shower-calib-r1525.dat
     - $1532 < \text{run} < 1537$: shower-calib-r1537.dat
     - $1538 < \text{run} < 1547$: shower-calib-r1539.dat
     - $1548 < \text{run} < 1800$: shower-calib-r1553.dat
     - $1884 < \text{run} < 1987$: shower-calib-r1553.dat
     - $1828 < \text{run} < 1883$: shower-calib-r1858.dat

     - $20000 < \text{run} < 20254$: pr-calib-test4.dat
     - $20270 < \text{run} < 20996$: pr-calib1.dat

  2. Detection efficiency

     - right cerenkov (from kin. 3.7, W=1.142 GeV): 99.99%
     - left cerenkov (from kin. 3.7, W=1.142 GeV): 99.98%

     - total shower (from kin. 4.4, W=1.664 GeV): 99.76%
     - pion rejector (from kin. 4.4, W=1.664 GeV): 99.67%

  3. cut efficiency

  - right and left cerenkov cut at channel 220: eff. $> 99.0\%$

  - study of the cuts on E/P and psh to have more than $> 99.0\%$

4. problems

  - right cerenkov mirror 3 has a huge pedestal tail.
  - preshower blocks 8 and 16 had their HV increased several times by mistake: the spectrums became to large and we cannot recover for it.
  - pion rejector 2nd layer block 4 had a problem with the amplification in kin 4.2 (and certainly before it).

5. PID analysis scheme

  - $1000 < \text{run} < 1531$: cerenkov + total shower.
  - $1532 < \text{run}$: only cerenkov

  - $20000 < \text{run} < 20256$: cerenkov and pion rej. 1st layer.
  - $20257 < \text{run}$: cerenkov + pion rejector.

- target

  - did all NMR and EPR fit offline.
  - so I have all NMR signal heights and EPR frequency shifts.
  - need to review temperature tests analysis.
  - then need to evolve polarization between measurements.

- Data Replay

1. replay all production runs with the last PID calibrations.
2. wrote a PERL code to read ring-buffer.

- Plan
- write note on PID detector analysis.
- BPM/raster analysis.
- VDC efficiency.
- Asymmetry code.
- target analysis.