

- Test of Cherenkov detector prototype
- Prototype drawing sent to Giovanni
- Detector uses C<sub>4</sub>F<sub>10</sub> (perfluorobutane) gas, which is non-flammable
- Volume of gas inside detector is approximately 450 liters (about 4.4 Kg). We will bring a supply of 20 Kg, i.e. about 2100 liters as liquefied gas in bottles
- We will bring the following hardware from Genova:
  - o Gas system comprising pipes, valves, pressure meters, etc.
  - o Mass spectrometer for gas analysis comprising a quadrupole working under vacuum produced by pumps included in the set-up
  - o High voltage power supply for photomultipliers
  - o NIM + VME trigger and DAQ electronics
  - o SUN Ultra Sparc Workstation for DAQ management
  - o HV and signal cables
  - o Total current absorbed by electronics, pumps etc. is about 15 A
- The total number of read-out channels is for sure less than 10
- The detector will be put on the movable table and we will need both horizontal and vertical motion
- Plan is to make first some commissioning at fixed position (1-2 days), then several measurements at 18 different detector position, each measurement taking about an hour including the table motion , with a repetition rate of 50 Hz and 1 electron per spill . We estimate that we will need a total dose not exceeding 5 million electrons
- We would like to use the available calorimeter in the hall for trigger purposes. We need to know its characteristics and the way is set-up in terms of read-out electronics to be able to integrate it in our DAQ
- What we need in particular is the ability to distinguish one electron in the spill from two, three, etc. Therefore we can probably use a single beam energy corresponding to total absorption in the calorimeter
- All of our equipment will be put in the experimental hall
- We will need 10 base-T Ethernet in the hall for the DAQ and for the Sun station
- We will need access to 1-2 Linux Workstations for the remote connection to the Sun