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Status Report on DIRAC (SPSC, 2 of May 2006)

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Upgrading the DIRAC setup in 2006. Progress and schedule:

1. New vacuum channel and additional shielding: Installed in March, vacuum tests are done. Completed.
2. Micro Drift Chambers: The Micro Drift Chambers with their electronics will be upgraded and installed before the end of July.
3. Scinitillator Fiber Detectors: The two planes of the Scintillating Fiber Detector are ready. Assembling of the detectors will be finished before the middle of July.
4. Drift Chambers: Cleaning, assembly and installation of the old drift chambers is completed.
5. Horizontal Hodoscope: The new Horizontal Hodoscope will be installed before the end of May.
6. Vertical Hodoscope: The new support will be installed before the middle of May. Four new modules will be added at the beginning of July.
7. Preshower: The new detector was installed in April. Completed.
8. Aerogel Cherenkov Detectors: The Aerogel detectors for the main (positive) arm will be installed in July.
9. Heavy Gas Cherenkov Counters:

- The construction of the detectors will be finished in May.
- Flat mirrors are ready, spherical mirrors will be ready before July,
- Evaporation of mirror- July,
- Photomultipliers will be delivered in July.
- The gas system will be ready by end of July/beginning of August.
- The assembly and installation of the detector will be finished in the beginning of August.

10. New Electronics: All modules of the new Front End and Readout Electronics will be constructed and tested before August. All modules for the trigger will be delivered by middle of July.
11. DAQ System: Part of the work for the new DAQ software was already done in 2005. The test with the new hardware will begin in the middle of July and will continue through August-September.
12. Trigger: The Trigger will be assembled in July and tuned during August-September.
13. Commissioning: commissioning of the DIRAC set-up is scheduled before end of September. Data production is scheduled from October onwards.

Analysis of old data:

1. Fine-tuning and cleaning of data led to a new preselection for all runs up to 2003. Completed.
2. The DIRAC multiple scattering measurements have been analyzed by three groups independently. The preliminary results suggest that Moliere description works well, but several detectors had slightly wrong thicknesses in their material budget in DIRAC-GEANT. The systematic error from multiple scattering thus is under control.
3. Final analysis of all data with different strategies should finish by end of 2006.