ID de Contribution: **30** Type: **Oral presentation**

Particle Identification for the PANDA Detector

mercredi 5 mai 2010 12:00 (30 minutes)

The PANDA detector at the HESR of the future FAIR facility at GSI will measure the annihilation products of antiprotons impinging on a fixed target. The combination of a compact target spectrometer with a wide angle forward spectrometer was chosen for hermetic coverage of the full solid angle. Charged particle identification over a large momentum range is performed in the target spectrometer by two RICH detectors using the DIRC (Detection of Internally Reflected Cherenkov light) principle. Cherenkov photons are generated in synthetic fused silica radiators and transported by total internal reflection towards the photon detectors, placed outside the fiducial volume. The combination of a DIRC barrel and a forward endcap disk DIRC will cover the angular range between 5 and 140 degrees.
We present the design of the barrel DIRC with three-dimensional readout capable of performing dispersion correction using fast timing. For the forward endcap disk two options are being considered: The "focussing disk DIRC," which includes LiF crystals for dispersion correction, and the "TOP disk DIRC" which uses the time of propagation of the photons for particle identification.
Ongoing developments and the results of test beams for the various PANDA DIRC prototypes will be presented.

Please indicate "poster" or "plenary" session. Final decision will be made by session coordinators.

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