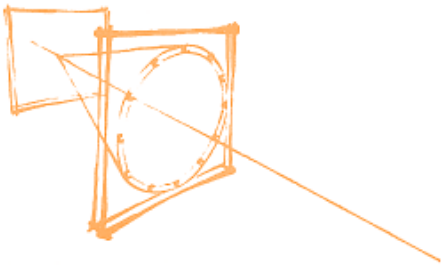

Contribution ID: **12** Type: **Poster**

A Focussing Disc DIRC for PANDA

Thursday, 6 May 2010 10:00 (1 minute)

The PANDA experiment, part of the planned FAIR upgrade to GSI, Darmstadt, will aim to study modern hadronic physics with unprecedented accuracy and precision. Excellent particle identification of both charged and neutral particles is necessitated to achieve PANDA's physics aims. Two Detection of Internally Reflected Cherenkov (DIRC) detectors are foreseen for charge particle identification, one in a barrel configuration for the the central region, and the second in a disc configuration for forward angles. The design of the forward disc centres around the novel application of passive chromatic dispersion correction elements, allied with focussing optics, to achieve superior resolution. A system of comprehensive prototype development will show the feasibility of the system.

Key to the success of the prototype is fully understanding the production, transport and detection of the Cherenkov photons within the detector. Initial test beam data giving the photon yield and its dependence on the polar angle of the detector will be shown. Observed photon yield is also the basis for subsequent studies into benefit of chromatic dispersion correction elements, the latest studies of which will also be shown.

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

Poster

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Session Classification: Poster Session 2 (Summary)

Track Classification: Novel Cherenkov imaging techniques