Workshop for young scientists with research interests focused on physics at FAIR



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## The Ring Imaging Cherenkov detector for the CBM-Experiment

Thursday, 6 September 2012 17:00 (30 minutes)

The Compressed Baryonic Matter (CBM) experiment at the Facility for Antiproton and Ion Research (FAIR) at Darmstadt will be a dedicated heavy-ion experiment for the investigation of baryonic matter at highest net-baryon densities. The measurement of some of the key observables of the physics program of CBM requires clean and efficient electron identification which will be performed by the Ring Imaging CHerenkov detector (RICH). It will consist of a gaseous radiator volume, high UV-reflectivity mirrors, and a photo-detector which is foreseen to be built of Hamamatsu H8500 multianode photomultiplier tubes. A real-size prototype RICH detector with self triggered readout electronics has been built and was succesfully tested at the CERN PS/T9 beamline. We will discuss the performance of the prototype with emphasis on the photo-detector, as well as the status of R&D activities concerning the usage of wavelength-shifting films and the evaluation of glass mirrors.

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