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First data from the HERMES Recoil Detector

The Hermes collaboration installed a new Recoil Detector surrounding the internal gas target to upgrade the existing spectrometer. It will allow the detection and identification of low energy protons at large angles originating from hard exclusive processes. These measurements will provide access to generalised parton distributions. This Recoil Detector consists of three subdetectors: a silicon detector inside the beam vacuum using a charge division read out to achieve energy deposition measurements over a large dynamic range, a four layer scintillating fibre tracker for space-point reconstruction, and a photon detector using tungsten as shower generating material. All three sub-detectors are located inside a solenoidal superconducting magnet, which provides a 1 T longitudinal magnetic field. The Recoil Detector was installed in January 2006 and will take data until July 2007. An overview of the first measurements of recoil protons by the detectors will be given, with an emphasis on the silicon detector performance. Changes to the original design shown at this conference in 2004 will be presented. Estimates on tracking efficiencies and energy resolutions will be shown.

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