

Abstract Submitted
for the HAW05 Meeting of
The American Physical Society

Kell_Wire Drift Chambers ANNA KELL, MEP University of Houston
— Wire Tracking Chambers are used to determine the track of charged particles through space. This project is to construct two multiwire proportional chambers, to write the data acquisition program to acquire data, and to track cosmic rays with the chamber system. The tracking chamber system will be used to test the efficiency and position resolution of other detectors placed between the tracking chambers. Information gained with these detectors will be used for the MECO and other experiments. The most prevalent cosmic rays at sea level are energetic muons, which are minimum ionizing particles. These particles are of most interest for our tests, thus muon signals are relevant for testing purposes. Drift chamber testing has revealed problems involving leakage currents across the detector frames which have been traced to the “O” ring seals. These have been replaced and the drift chambers are now being reassembled. The report of this project will present their operational parameters, including their efficiency, and tracking resolution as a function of voltage and gas.

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Date submitted: 27 Jun 2005

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