

Abstract Submitted
for the HAW09 Meeting of
The American Physical Society

Design and Kinematical Coverage of FNAL-E906 Spectrometer for Drell-Yan Measurement with 120-GeV Proton Beam KENICHI NAKANO, RIKEN, FNAL-E906 COLLABORATION — One of the major goals of the E906 experiment at FNAL is a precise measurement of the asymmetry between the distributions of \bar{u} and \bar{d} in the nucleon. With the 120 GeV proton beam and the liquid hydrogen and deuterium targets, muon pairs from the Drell-Yan process ($q + \bar{q} \rightarrow \gamma^* \rightarrow \mu^+ + \mu^-$) are measured. Particularly E906 focuses on the higher Bjorken- x range (> 0.3) of anti-quark distributions, at which a non-zero and un-predicted negative asymmetry has been observed by the FNAL-E866 experiment although it has a rather large experimental uncertainty. The E906 spectrometer has been designed to effectively collect high- x events. This presentation will show the spectrometer design and its kinematical coverage of expected physics results.

Kenichi Nakano
RIKEN

Date submitted: 01 Jul 2009

Electronic form version 1.4