

Abstract Submitted  
for the HAW05 Meeting of  
The American Physical Society

**Experimental Study of Duality in SIDIS at JLab** PETER BOSTED,  
JLAB E00-108 COLLABORATION — Measurements of semi-inclusive deep-  
inelastic scattering have been made using an unpolarized electron beam of energy 5.5  
GeV scattering from both proton and deuteron targets. Measurements were made  
with  $\pi^+$  or  $\pi^-$  detected in coincidence with the electrons. The dependence of hadron  
kinematic variable was studied for  $0.3 < z < 1$  and  $0 < p_t < 0.5$  GeV for average  
electron kinematic variables  $x = 0.32$  and  $W = 2.5$  GeV. The  $x$ -dependence was  
also studied in the range  $0.2 < x < 0.5$  for average  $z = 0.55$ . Although the electron-  
pion missing mass  $W' < 2$  GeV for these data, they are reasonably consistent (for  
 $z < 0.7$ ) with expectations from higher energy data assuming factorization of quark  
densities functions and current fragmentation functions.

Peter Bosted

Date submitted: 26 May 2005

Electronic form version 1.4