

Abstract Submitted
for the HAW05 Meeting of
The American Physical Society

Single-spin asymmetries of two hadron production in polarized deep inelastic scattering at HERMES TOMOHIRO KOBAYASHI, Tokyo Institute of Technology, HERMES COLLABORATION — HERMES has been taking data with a 27.6GeV positron beam at HERA and polarized gas targets (H, D). A pion pair produced in DIS was detected. Single spin asymmetries in the azimuthal distribution around the virtual photon direction have been measured. These asymmetries can be explained in terms of quark transversity distribution in conjunction with the interference fragmentations. The transversity is one of the three fundamental leading twist distribution functions. The other ones are the unpolarized quark number density and the helicity distribution function. Until recent years, the transversity has not been measured due to experimental difficulties arising from its chiral odd nature. It requires other chiral odd object in the process such as the interference fragmentation function. First results for these measurements will be shown.

Tomohiro Kobayashi
Tokyo Institute of Technology

Date submitted: 25 May 2005

Electronic form version 1.4