Abstract Submitted for the HAW05 Meeting of The American Physical Society

A 3D Liquid Scintillator Neutrino Detector¹ DANIEL PASSMORE,

University of Tennessee, Knoxville, REX TAYLOE, Indiana University, Bloomington — The Fine-grained Intense Neutrino Scattering Scintillator Experiment (FI-NeSSE) is a proposed liquid scintillator detector that will measure track coordinates in 3D using WLS optical fibers. FINeSSE proposes to use high intensity charged and neutral current neutrino scattering to precisely measure the strange quark spin component, delta s, of the nucleon. A FINeSSE 1D prototype was measured using the 200MeV proton beam at the Indiana University Cyclotron Facility (IUCF). Results for position and angular resolution of charged particle tracks measured in this device will be presented.

¹This work was supported by the National Science Foundation summer REU program at Indiana University.

> Daniel Passmore University of Tennessee, Knoxville

Date submitted: 02 Jul 2005

Electronic form version 1.4