Abstract Submitted
for the DNP13 Meeting of
The American Physical Society

Tension measurements for COMPASS-II prototype drift chamber
CHRISTOPHER CAMPBELL, Abilene Christian University and UIUC, COMPASS TEAM — COMPASS-II is an approved fixed target experiment at CERN's Super Proton Synchrotron (SPS) designed to investigate the origin of proton spin, specifically the contribution of L_{quark} and L_{gluon}. The experiment will be using the SPS's 190 GeV pion beam and a polarized NH3 target to study the pion-induced Drell-Yan process via deep inelastic scattering. Design and construction techniques are currently being prepared to build a drift chamber that will be installed as part of the COMPASS detector. As a part of that process, two prototype drift chambers have been developed and tested in order to prepare for construction of the final drift chamber. The latest prototype is 16.5" wide by 72" long, with a total of 66 alternating field and signal wires divided among two parallel wire chambers. In order for any drift chamber to function properly and uniformly, the tensile characteristics of the wires must be measured, both before and after the wires have been soldered in the chamber. This poster will detail the methods and results of these measurements as they apply to the prototype.

Christopher Campbell
Abilene Christian University and UIUC

Date submitted: 01 Aug 2013 Electronic form version 1.4