

Abstract Submitted
for the DNP06 Meeting of
The American Physical Society

Test of the Optical Readout of the UConn TPC Detector¹ TRISTAN KADING, MOSHE GAI, UConn, KAI TITTLEMEIER, VOLKER DANGENDORF, PTB — The UConn Time Projection Chamber (TPC) detector is being constructed as a UConn-Yale-Weizmann-PTB-TUNL-LLN collaboration to measure at the HI γ S at TUNL the $^{16}\text{O}(\gamma,\alpha)^{12}\text{C}$ reaction of importance for stellar evolution theory. We are currently constructing the readout system of this TPC using the optical chain of the CERN-CHORUS neutrino experiment. The Contrast Transfer Function (CTF) across the entire chain was measured at the Lab at PTB, Braunschweig, Germany, using a CCD camera and it was found be sufficient (sub-millimeter resolution) for resolving the expected tracks of particles in the TPC. Results of this measurement will be presented.

¹Supported by USDOE Grant # DE-FG02-94ER40870.

Tristan Kading
UConn

Date submitted: 25 Jul 2006

Electronic form version 1.4