Abstract Submitted
for the DPP10 Meeting of
The American Physical Society

Internal measurements on the Magnetized Target Fusion plasmas and overview of Pulsed Polarimetry techniques R.J. SMITH, University of Washington, T. INTRATOR, G.A. WURDEN, LANL — Progress toward producing internal measurements of n_e, B and T_e using Pulsed Polarimetry on the FRX-L device at LANL is detailed. The present laser, detection scheme and optical layout are described. The FRX-L field reversed configuration (FRC) plasma serves to develop the formation and translation hardware and scenario for Magnetized Target Fusion (MTF) program with n_e and B approaching 10^{23} m^{-3} and 5 T and T_e $\sim$100 eV. An overview of Pulsed Polarimetry measurement scenarios across the High Energy Density (HED) regimes represented by the MTF program and other HED plasmas is presented.

Roger J. Smith
University of Washington

Date submitted: 17 Jul 2010 Electronic form version 1.4