

Abstract Submitted  
for the DNP15 Meeting of  
The American Physical Society

**Measurement of nuclear dependence of  $p_T$  at Fermilab** SUYIN WANG<sup>1</sup>, Fermilab, IPAS, NKNNU, E906/SEAQUEST COLLABORATION — The suppression of J $\Psi$  and  $\Psi'$  production in the heavy ion collisions relative to their production in the p+p collisions has been proposed as one of the important signatures of the quark-gluon plasma (QGP) formation. The nuclear dependence of J $\Psi$  and  $\Psi'$  production in the p+A collisions is essential to characterize the important baseline of the cold nuclear matter effect in both the initial and final states of collisions. In addition the final-state effect can be further differentiated in comparison with the nuclear dependence of Drell-Yan process. Fermilab E906/SeaQuest is a fixed-target experiment where the J $\Psi$ ,  $\Psi'$  and Drell-Yan productions from 120-GeV proton beam colliding with protons and various nuclear targets are measured simultaneously via the dimuon channel. In this talk we will report the recent progress of nuclear dependence of these productions as a function of the transverse momentum of dimuon from E906/SeaQuest's measurements. The results will be compared to those of E866 experiment obtained at higher beam energies.

<sup>1</sup>SuYin Wang is with Institute of Physics, Academia Sinica, Taiwan, and Particle Physics Division, Fermi National Accelerator Laboratory, USA. She is also a Ph.D. student from Department of Physics, National Kaohsiung Normal University, Taiwan.

SuYin Wang  
Fermilab, IPAS, NKNNU

Date submitted: 01 Jul 2015

Electronic form version 1.4