

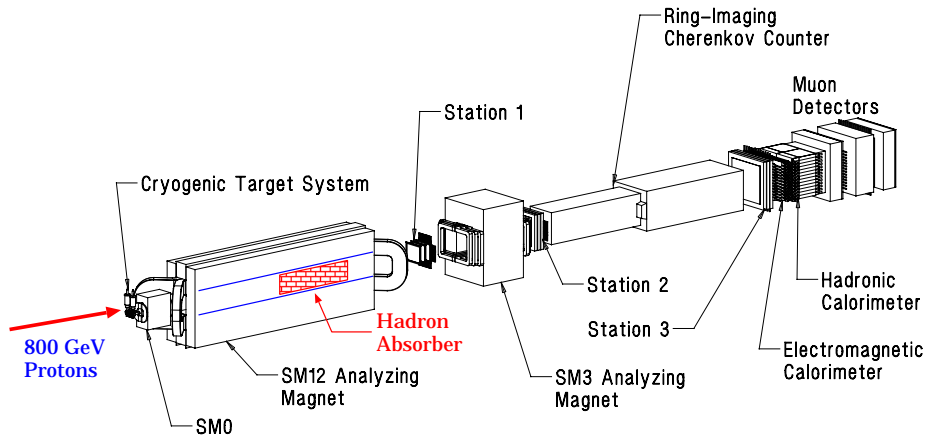
Measurement of J/Ψ and Ψ' Suppression in p-A Collisions at 800 GeV/c¹

Speaker: William H. Lee
Time: 1:30pm, Nov. 18, 1999
Location: 519 Kell Hall

Abstract

Measurements of the suppression of the yield per nucleon of J/Ψ and Ψ' production for 800 GeV/c protons incident on nuclear targets have been made with very broad coverage in x_F and p_T . Over 3×10^6 J/Ψ 's and 10^5 Ψ' 's with x_F between -0.10 and 0.93 and p_T up to 4 GeV/c were observed. Data for Be, Fe and W nuclear targets were used to determine the ratio of cross sections per nucleon between heavy and light targets for both the J/Ψ and Ψ' . The smallest suppression is observed at x_F values of 0.25 and below and increases at large values of x_F . It is also strongest at small p_T . The suppression for the Ψ' is stronger than that for the J/Ψ for x_F near zero, but becomes comparable to that for the J/Ψ for $x_F > 0.5$. The results will be extremely useful for the study of the Quark-Gluon Plasma signal from the RHIC experiments at Brookhaven National Laboratory.

FNAL E866 (NUSEA)



¹Ph.D defense talk, Department of physics and Astronomy, Georgia State University