

Abstract Submitted  
for the PSF15 Meeting of  
The American Physical Society

**$J/\psi$  photo-production at RHIC using  $\sqrt{s_{NN}} = 200$  GeV Au+Au collisions** L. CHANAKA DE SILVA, Creighton University, STAR COLLABORATION — The exclusive coherent photo-production of  $J/\psi$  mesons,  $\gamma A \rightarrow J/\psi A$ , has been studied in  $\sqrt{s_{NN}} = 200$  GeV Au+Au collisions with the STAR detector at RHIC, with a photon-nucleus center of mass of energy range of [15 – 35] GeV. The  $J/\psi$  is identified via its electron and muon decay channels in the mid-rapidity region of the STAR detector. The analysis is based on an event sample corresponding to an integrated luminosity of about  $1075 \mu\text{b}^{-1}$ . The differential cross section  $d\sigma/dy$  is presented in the rapidity range,  $-1 < y < 1$ . Finally, the measurements are compared with theoretical predictions

Lindamulage Chanaka De Silva  
Creighton University

Date submitted: 16 Oct 2015

Electronic form version 1.4