

Ratio of J/Psi to Rho Photoproduction Cross Sections at the Relativistic Heavy Ion Collider with STAR

The intense electromagnetic fields associated with relativistic heavy ions make a heavy-ion collider a unique tool to study two-photon and photonuclear interactions. In this talk, we present a new measurement of J/psi photoproduction in 200 GeV AuAu collisions at RHIC. The p_T distribution of the J/psi mesons peaks at very low p_T , consistent with expectations for coherent photoproduction. Both the photoproduction cross section and the J/psi rapidity distribution are expected to show the effects of gluon shadowing. We present a measurement of the ratio of J/psi to ρ^0 meson cross sections in 200 GeV AuAu collisions, as well as a distribution of rapidity within $|y| < 1$ for the J/psi mesons. The measured results are compared to theoretical models.

Primary author: Dr SEGER, Janet (Creighton University)

Presenter: Dr SEGER, Janet (Creighton University)

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