

Abstract Submitted
for the HAW05 Meeting of
The American Physical Society

Photoproduction of ρ mesons in Au+Au Ultra-Peripheral Collisions of $\sqrt{s_{NN}} = 200$ GeV from STAR B.A. HAAG, UC Davis , STAR COLLABORATION — Photoproduction between Au+Au ions in Ultra Peripheral Collisions (UPC's) at RHIC generates vector mesons including the ρ meson. This occurs when a photon from one nucleus fluctuates into a quark-antiquark pair and scatters off the second nucleus which produces a vector meson. The $t = p_T^2$ spectrum for ρ production, where t is the 4 momentum transfer squared, is sensitive to interference between the two possible production channels: the first nucleus emits a photon which scatters from the second nucleus, or vice versa. In this talk, we will present dN/dt for ρ^0 production from the STAR detector at RHIC. Correlations between the degree of interference and the features of the spectrum will be discussed.

Brooke Haag
UC Davis

Date submitted: 18 Aug 2005

Electronic form version 1.4