Abstract Submitted
for the APR11 Meeting of
The American Physical Society

Thermal Photon measurement using the Hadron Blind Detector: Status and Outlook SKY ROLNICK, UC Riverside — Thermal photons are an important probe used in understanding the hot dense matter formed in heavy ion collisions. Previous measurements in the PHENIX experiment at RHIC have shed light on the rapid thermalization times observed in heavy ion collisions as well as put limits on the measured temperature range of the collision. Getting at the thermal photon contributions is challenging, particularly in the low and intermediate pT region, where direct photons can be experimentally accessed only by measuring dielectron pairs from internal/external conversions. One difficulty that arises in using dielectrons to measure thermal photons is the large combinatorial backgrounds present particularly in the low mass region $< 1GeV/c^2$. The Hadron Blind Detector has been developed specifically to reduce backgrounds from conversion and Dalitz decays and will help improve the thermal photon measurement. In this talk I will present a review of latest results on thermal photons measured in the PHENIX experiment as well as current outlook on future thermal photon measurements.

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Date submitted: 21 Jan 2011 Electronic form version 1.4