

Abstract Submitted  
for the DNP08 Meeting of  
The American Physical Society

**Are direct photons suppressed at high  $p_T$  in relativistic heavy ion collisions?** GABOR DAVID, Brookhaven National Laboratory, PHENIX COLLABORATION — Preliminary results from PHENIX on direct photon production in 200GeV Au+Au collisions indicated that while at moderate  $p_T$  (4-14GeV/c) the nuclear modification factor for photons is unity, at higher  $p_T$  it may be significantly less, maybe even similar to the well-established hadron-suppression (“jet quenching”). Such suppression might have both trivial reasons (“isospin effect”) and be the consequence of genuine nuclear effects. On the other hand this  $p_T$  region is very challenging experimentally. Applying the latest analysis techniques to the 200GeV and 62GeV Au+Au data from PHENIX we will investigate if direct photons are suppressed at high  $p_T$  and if so, what are the physics implications.

Gabor David  
Brookhaven National Laboratory

Date submitted: 30 Jun 2008

Electronic form version 1.4