

**PHENIX measurement of centrality dependent charged hadron production in  
deuteron-gold and nucleon-gold collisions at  $\sqrt{S_{NN}} = 200$  GeV**

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We present transverse momentum ( $p_T$ ) spectra of charged hadrons measured in deuteron-gold and nucleon-gold collisions in the PHENIX experiment at  $\sqrt{S_{NN}} = 200$  for four centrality classes. Nucleon-gold collisions were selected by tagging events in which a spectator nucleon was observed in one of two forward rapidity detectors. The spectra and yields were investigated as a function of the number of binary nucleon-nucleon collisions,  $\nu$ , suffered by deuteron nucleons. A comparison of charged particle yields to those in  $p + p$  collisions show that yield per nucleon-nucleon collision saturates with  $\nu$  for high momentum particles. We also present the charged hadron to neutral pion ratios as a function of  $p_T$ .