

Abstract Submitted
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Characterizing cold nuclear matter effects through dielectrons in d+Au collisions at PHENIX JASON KAMIN, Stony Brook University, PHENIX COLLABORATION — Electron-positron pairs are effective probes for investigating the hot, dense matter created in RHIC collisions because they are color neutral and, once created, do not interact strongly with the medium. As a result, they retain characteristics of the full time evolution and dynamics of the system. Among the many features, the low mass region ($m < 1 \text{ GeV}/c^2$) consists primarily of pairs from Dalitz decays of light hadrons and direct decays of vector mesons that can be modified by the medium, while the intermediate ($1 < m < 3 \text{ GeV}/c^2$) and high ($4 < m < 12 \text{ GeV}/c^2$) mass regions are dominated by charm and bottom. The PHENIX experiment has presented the dielectron continuum in p+p, Cu+Cu and Au+Au collisions at $\sqrt{s_{NN}} = 200 \text{ GeV}$. Recently PHENIX measured d+Au collisions which are crucial as they provide a complimentary reference for comparison with heavy ion collisions while illuminating cold nuclear matter effects. The statistics provided by the 2008 RHIC d+Au data set allow the dielectron spectrum to extend to mass ranges where bottom dominates. These data are currently being analyzed and the dielectron status will be presented.

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