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Characterizing cold nuclear matter effects through dielectrons in d+Au collisions at $\sqrt{s_{NN}}$ = 200 GeV 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 therefore, 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 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 GeV/c^2) and high (4<m<12 GeV/c^2) mass regions are dominated by mesons containing charm and bottom. The PHENIX experiment has presented the dielectron continuum spectrum in p+p, Cu+Cu and Au+Au collisions at $\sqrt{s_{NN}}$ = 200 GeV. An enhancement is observed in Au+Au in the mass range 150<m<750 MeV/c^2 when compared to the expected hadronic sources. This enhancement is not seen in p+p collisions. Recently PHENIX measured d+Au collisions which are crucial as they provide a complimentary reference for comparison with heavy ion collisions and can identify potential initial state effects contributing to the low-mass excess seen in Au+Au. The statistics also allow the d+Au measurement to extend to mass ranges where bottom dominates. These data are being analyzed and the d+Au dielectron status will be presented.

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