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Dielectron Mass Spectra From $\sqrt{s_{NN}}$ = 200 GeV Heavy Ion Collisions at PHENIX SARAH CAMPBELL, SUNYSB, PHENIX COLLABORATION — The dielectron mass spectra is rich in physics signals including vector meson decays, hadron Dalitz decays, correlated semi-leptonic heavy flavor decays and direct virtual photon emission. In medium mass modifications of light vector mesons due to the QCD phase transition, the effects of chiral symmetry restoration as well as thermal radiation, may result in an additional signal in the low mass region. The PHENIX $\sqrt{s_{NN}}$ = 200 GeV Au+Au analysis shows the following centrality dependent trends: an excess in the the low mass region of the central Au+Au spectra over the expected reference cocktail of known hadronic sources, and a suppression pattern in the intermediate region, where correlated charm is expected to dominate. The status of the PHENIX $\sqrt{s_{NN}}$ = 200 GeV Cu+Cu analysis, in minimum bias and separated into centrality classes, will be presented. The Cu+Cu dataset will provide additional sensitivity in the study of centrality dependent trends. Comparisons between the Au+Au, Cu+Cu and p+p spectra with N_{coll} and N_{part}scaling will clarify the nature of the many features seen in the Au+Au spectra.

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