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Direct Photons in Cu+Cu collisions at $\sqrt{s_{NN}} = 62.4GeV$ TIM HESTER, UC Riverside, PHENIX COLLABORATION — Direct-photons measured with the PHENIX detector at RHIC, in Au+Au collisions, have been found to scale with the number of binary (nucleon-nucleon) collisions at large transverse momenta. In contrast, earlier measurements from RHIC, using charged and neutral hadron spectra, showed a clear suppression with respect to pp collisions. That suppression was interpreted to be due to the energy loss of scattered partons in the produced dense medium in heavy-ion collisions. Thus, it is concluded that such an energy loss is not evident for direct-photons. In order to understand the turn-on of these effects, similar measurements have been subsequently made for Cu+Cu collisions at various collision energies. This work will present a new measurement of direct photons in Cu+Cu collisions at $\sqrt{s_{NN}} = 62.4GeV$. The smaller system size may provide new insight into the system size dependence of photon production. These data will be compared to pp collision data, as well as neutral pion spectra from the same collision data, to check for modification of particle production due to effects of the system created in the heavy ion collisions.

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