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Measurement of single muons in Cu-Cu collisions with the PHENIX experiment at RHIC DONGJO KIM, MINKYUNG LEE, Yonsei University, PHENIX COLLABORATION — The measurement of open charm production in various collision species at different energies is important to study the properties of matter formed in the early stage of relativistic heavy ion collisions, especially to understand charm energy loss and recombination systematically. The RHIC facility provided Cu-Cu collisions at both high and low energy in 2005. This lighter colliding system compared with Au-Au can give much better precision on the centrality measurement in the lower N_{part} region, and the comparison between two different colliding energies may give us a better systematic understanding of charm production. PHENIX detectors measure muons in the rapidity range $1.2 < |\eta| < 2.4$, thus enabling us to study open charm as well as light meson production at forward rapidity. The status of single muon measurements of the centrality, transverse momentum and rapidity dependence of semi-leptonic open charm decays and light meson production, in Cu+Cu collisions at $\sqrt{s_{NN}}$=200 GeV and 62.4GeV will be presented.

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