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**D-Meson Measurements in Cu+Cu Collisions at  $\sqrt{s} = 200\text{GeV}$  at STAR Using the Silicon Inner Tracker** SARAH LAPOINTE, Wayne State University, STAR EXPERIMENT AT RHIC COLLABORATION — Since the most likely production mechanism for charm is gluon fusion, the charm cross section should scale with the number of binary collisions. Such a scaling would indicate that the production of charm occurs during the early stages of the collision, making it a unique probe of the partonic matter. Recent measurements provide some insight of the heavy flavor spectrum and collectivity. Non-photon single electron  $p_T$  distributions measured in p+p, d+Au, and Au+Au collisions indicate the nuclear modification factor is significantly below unity for  $p_T$  1-4 GeV/c for central events. This implies the heavy flavor spectrum is modified by the medium. However, due to an uncertainty in the relative fraction of charm and bottom, this measurement does not enable an unambiguous determination of energy loss that charm experiences in the medium. The event mixing technique has also been used to reconstruct  $D^0$ . However it does not provide the statistical significance necessary to perform a good measurement of charm elliptic flow. In this talk, we present preliminary results from D-Meson measurements in minimum bias Cu+Cu collisions at  $\sqrt{s}=200\text{GeV}$  at STAR. The measurements are performed using a secondary vertexing technique. They provide a basis for future measurements of charm cross section, energy loss and collectivity in heavy ion collisions at RHIC.

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