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Preliminary Results on Open Charm Production in Au+Au Collisions at $\sqrt{s_{NN}}$=200 GeV HAIBIN ZHANG, Brookhaven National Laboratory, STAR COLLABORATION — Heavy quarks are important tools to probe the hot and dense matter produced in relativistic heavy ion collisions. Due to the large mass of the charm quark, charm cross sections are calculable via pQCD and their yield is sensitive to the initial gluon density. In addition, the open charm yield is an important baseline for understanding the J/ψ production in the presense of deconfined quarks and gluons. We will report preliminary results on open charm production directly reconstructed via hadronic decay channels in minimum bias Au+Au collisions at $\sqrt{s_{NN}}$=200 GeV at the STAR detector. The invariant mass spectra of open charm hadrons will be shown. Their yields will be presented and compared to those in d+Au collisions at $\sqrt{s_{NN}}$=200 GeV. Possible physics implications of these measurements will also be discussed.

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