

# Semileptonic decays of heavy mesons at RHIC

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Single particle spectra of charmed and bottomed mesons produced in proton-proton and proton-(anti)proton collisions are calculated for the RHIC energies. In the first step of our approach the single particle spectra of heavy quarks and antiquarks are obtained assuming gluon-gluon fusion and quarks-antiquarks annihilations. To obtain the single particle spectra of mesons from those of quarks/antiquarks a standard hadronization procedure with Peterson and Braaten-Cheung-Fleming-Yuan fragmentation functions are applied. The results for non-photonic electrons are compared with the experimental data from the PHENIX collaboration. Conclusions about unintegrated parton distributions are drawn. Predictions for planned experiments are given.

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