

Charmed meson production in proton-proton collisions

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Single particle spectra of charmed mesons produced in proton-proton collisions are calculated for the RHIC, Tevatron and LHC energies. The results are compared with the experimental results from Tevatron. In the first step of our approach the single particle spectra of charmed quarks and antiquarks are obtained assuming gluon-gluon fusion. Different unintegrated gluon distributions from the literature are used. To obtain the single particle spectra of meson from those of quarks/antiquarks a standard hadronization procedure with Peterson fragmentation function is applied. Conclusions about unintegrated gluon distributions are drawn. Predictions for planned experiments are given.

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