

Open charm hadroproduction and the charm content of the proton

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We advocate charmed-hadron inclusive hadroproduction as a laboratory to probe intrinsic charm (IC) inside the colliding hadrons. Working at next-to-leading order in the general-mass variable-flavor-number scheme endowed with non-perturbative fragmentation functions recently extracted from a global fit to e^+e^- annihilation data from KEKB, CESR, and LEP1, we first assess the sensitivity of Tevatron data of D^0 , D^+ , and D^{*+} inclusive production to the IC parameterizations provided by Pumplin et al. We then argue that similar data from pp collisions at RHIC would have the potential to discriminate between different IC models provided they reach out to sufficiently large values of transverse momentum.

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