Charm and Jets in Photoproduction

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Abstract

Photoproduction of charm events containing jets are investigated. The charm quark is tagged via the meson D^* and is reconstructed in the central rapidity range of $|\eta(D^*)| < 1.5$. While the rapidity range for the jets is extended up to $\eta^{jet} < 2.7$. The charm quarks are mainly produced via the process *Boson Gluon Fusion* therefore investigating charm events allow to determine the k_t distribution of the unintegrated parton densities.

Photoproduction of charm reaches the smallest possible values of the x_g. The presence of jets with forward rapidities and small transversive momentum gives an access to investigate the parton behavior in this region.