Measurement of Dijet Rates in Deep Inelastic Scattering at HERA

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The ratio of the number of 2 jet events and the number of inclusive DIS events R_2 has been measured for deep inelastic scattering using data collected with the H1-Detector in the years 1996-1997. The analysis covers the kinematic domain $10^{-4} < x_B < 10^{-2}$ and $5 < Q^2 < 100\,\mathrm{GeV}^2$. The integrated luminostiy of $\approx 20\ \mathrm{pb}^{-1}$ allows to measure R_2 as a function of both x_B and Q^2 herewith extending a single differential analysis recently published by H1 with 1994 data[1]. It opens the possibility of a more detailed study of jet production at low x_B in a regime where the squared four momentum transfer Q^2 is comparable to the squared jet E_t. The data are confronted with models including a non-pointlike photon structure as well as to next-to-leading order calculations.

References

1. H1 Collaboration, C. Adloff *et al*, DESY-98-076 / submitted to Eur. Phys. J. C.