Abstract 246
Parallel sessions: 2,3,4
Plenary sessions: 1,3,4

Determination of α_S from Jet Rates in Deep–Inelastic Scattering

H1 Collaboration

A new measurement of the strong coupling constant α_S based on jet rates in deep–inelastic *ep*–scattering at HERA is presented. $\alpha_s(Q^2)$ is determined in four different bins of Q^2 in a range from 40 GeV^2 to 4000 GeV^2 in next–to–leading order using the JADE jet algorithm. A combined fit of these $\alpha_s(Q^2)$ measurements to the renormalization group equation is performed. The analysis relies on a data sample corresponding to an integrated luminosity of 5.8 pb^{-1} taken with the H1 detector in 1994 and 1995.