

Exclusive Electroproduction of two pions at HERA

Two pion exclusive electroproduction at HERA has been studied with the ZEUS detector using 82 pb⁻¹ of integrated luminosity collected during 1998-2000. The analysis was carried out in the kinematic range of photon virtuality $2 < Q^2 < 80 \text{ GeV}^2$, γ^*p center-of-mass energy $40 < W < 180 \text{ GeV}$ and two-pion invariant mass $0.4 < M(\pi\pi) < 2.5 \text{ GeV}$. The $\pi^+\pi^-$ -invariant-mass distribution was analysed in terms of the pion electro-magnetic form factor, $|F(M_{\pi\pi})|$ based on the contributions from three Vector Mesons, ρ , ρ' and ρ'' . The masses and widths of the resonances were obtained. The Q^2 dependence of the cross-section ratios $\sigma(\rho)/\sigma(\rho')$ and $\sigma(\rho'')/\sigma(\rho)$ was studied.

Auteur principal: Prof. ZEUS, Collaboration (Tel Aviv University)

Orateur: Mme ABRAMOWICZ, Halina

Classification de thématique: QCD