

Contribution submission to the conference Bonn 2010

Diffractive J/ψ production at low $W_{\gamma p}$ with the H1 detector at HERA — ●FLORIAN HUBER — Physikalisches Institut, Universität Heidelberg, Philosophenweg 12, 69120 Heidelberg

Diffractive photoproduction of J/ψ mesons is studied with data taken at the electron-proton collider HERA. In the end of the HERA operation in 2007 the nominal proton beam energy was reduced from 920 GeV to 575 and 460 GeV, respectively. The reduced proton beam energy allows diffractive J/ψ measurements in an extended phase space towards smaller centre of mass energies in the photon proton rest frame, $W_{\gamma p}$. The decay channel used for this analysis is $J/\psi \rightarrow e^+e^-$. The tracks of the two decay leptons were online reconstructed using the Fast Track Trigger. Elastic and proton dissociative events are separated using the forward detectors of the H1 experiment. Differential cross sections are presented in t , where t is the squared four-momentum transfer at the proton vertex, and in $W_{\gamma p}$ for low photon virtualities of $Q^2 \leq 1$ GeV in the kinematical phase space region $W_{\gamma p} \geq 20$ GeV and $t \leq -1.2$ GeV².

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