

# Diffractive Rho electroproduction at ZEUS

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The exclusive electroproduction of rho,  $\gamma p \rightarrow \rho^0 p$ , has been studied with the ZEUS detector at HERA for the virtualities exchanged photon in range  $2 < Q^2 < 160 \text{ GeV}^2$ , the photon-proton centre-of-mass energy  $32 < W < 180 \text{ GeV}^2$ . The cross sections are presented as a function of  $Q^2$  and  $W$ . The helicity analysis of the decay-matrix elements of  $\rho^0$  was used to study the ratio of the  $\gamma p$  cross sections for longitudinal and transverse photon as a function of  $Q^2$  and  $W$ . The effective Pomeron trajectory was extracted. The results are compared to various theoretical predictions.

**Presenter:** UKLEJA, Justyna (Penn State University)

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