

Contribution submission to the conference Freiburg 2008

Prompt photons in photoproduction at H1 — ●KRZYSZTOF NOWAK — Physik-Institut der Universitaet Zuerich, Winterthurerstrasse 190, 8057 Zuerich, Switzerland

A measurement of prompt photons in photoproduction at the H1 detector is presented. Production of isolated photons with high transverse momentum can be well calculated in QED, but previous measurements have shown that higher order corrections are important. The analysis is based on data taken in the years 99-07 with a total integrated luminosity of $340pb^{-1}$. The experimental challenge is the separation of photons from background from neutral mesons which is dominating. The photon signal is extracted by combining different shower shape variables into a likelihood and fitting the background and photon fraction to the data. Inclusive and exclusive (photon+jet) cross sections will be presented as a function of the transverse energy ($6 < E_t^\gamma < 15GeV$), the pseudorapidity ($-1 < \eta^\gamma < 2.43$) and the momentum fractions x_γ and x_{proton} of the incident photon and proton carried by the constituents participating in the hard scattering process.

Part: T
Type: Gruppenbericht;Group report
Topic: 2.4 Elektroschwache Wechselwirkung (Exp.)
Email: knowak@mail.desy.de