Results from ZEUS and H1 on Diffractive Processes

J. A. Crittenden
Physikalisches Institut, Universität Bonn
Nußallee 12, 53115 Bonn, Germany

Operation of the electron/proton storage ring facility HERA and of its two multi-purpose collider experiments H1 and ZEUS over the past six years has opened up a broad range of topics in diffractive scattering for investigation. Some of these topics, such as vector-meson leptoproduction, extend a rich history of such studies, while others, such as inclusive diffractive processes at high photon virtuality, have no precedent. This talk will provide an overview of such investigations at HERA, with particular emphasis on specialized experimental techniques. Recent revelations concerning the helicity structure of exclusive vector-meson leptoproduction will be discussed in depth. The physics prospects and associated instrumentation issues relevant to the kinematics of the proposed EPIC collider will be addressed during the course of the presentation.