

# Deep Inelastic Scattering off Pions

Bogdan Povh

Max-Planck-Institut fuer Kernphysik, Heidelberg, Germany

The forward neutron production in the  $ep$  collisions at 300 GeV measured by the H1 and ZEUS Collaboration at DESY has been used to estimate the probability for the proton to fluctuate into  $n\pi^+$  and  $p\pi^0$ . The probability found is on the order of 30%. This number is compared with the numbers of obtained for the probability of quark fluctuation into pions from the measurement of the Gottfried sum rule by NMC collaboration at CERN and the measurement of the quark polarization by HERMES at DESY. Furthermore, the axial-vector coupling constant, where the pion fluctuation is believed to play an important role, has been included in the analysis.