## **Structure Functions**

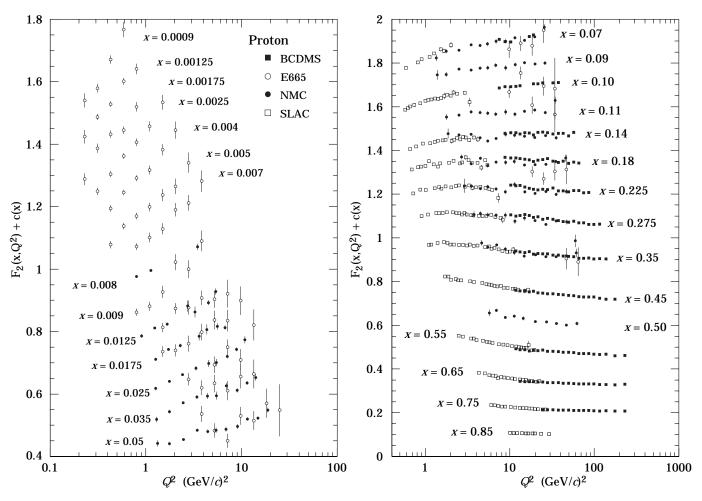


Figure 38.3: The proton structure function  $F_2^p$  measured in electromagnetic scattering of electrons (SLAC) and muons (BCDMS, E665, NMC), shown as a function of  $Q^2$  for bins of fixed x. Only statistical errors are shown. For the purpose of plotting, a constant  $c(x) = 0.1i_x$  is added to  $F_2^p$  where  $i_x$  is the number of the x bin, ranging from 1 (x = 0.05) to 14 (x = 0.0009) on the left-hand figure, and from 1 (x = 0.85) to 15 (x = 0.07) on the right-hand figure. For HERA data in the kinematic range of this figure, see Fig. 38.1. References: BCDMS—A.C. Benvenuti et al., Phys. Lett. B223, 485 (1989); E665—M.R. Adams et al., Phys. Rev. D54, 3006 (1996); NMC—M. Arneodo et al., Phys. Lett. B364, 107 (1995). SLAC—L.W. Whitlow et al., Phys. Lett. B282, 475 (1992). (Courtesy of R. Voss, 1996.)