NOTE: THE FIGURES IN THIS SECTION ARE INTENDED TO SHOW THE REPRESENTATIVE DATA. THEY ARE NOT MEANT TO BE COMPLETE COMPILATIONS OF ALL THE WORLD’S RELIABLE DATA.

Figure 16.7: The proton structure function $F_2^p$ measured in electromagnetic scattering of positrons on protons (collider experiments ZEUS and H1), in the kinematic domain of the HERA data, for $x > 0.00006$ (cf. Fig. 16.10 for data at smaller $x$ and $Q^2$), and for electrons (SLAC) and muons (BCDMS, E665, NMC) on a fixed target. Statistical and systematic errors added in quadrature are shown. The data are plotted as a function of $Q^2$ in bins of fixed $x$. Some points have been slightly offset in $Q^2$ for clarity. The ZEUS binning in $x$ is used in this plot; all other data are rebinned to the $x$ values of the ZEUS data. For the purpose of plotting, $F_2^p$ has been multiplied by $2^{i_x}$, where $i_x$ is the number of the $x$ bin, ranging from $i_x = 1$ ($x = 0.85$) to $i_x = 28$ ($x = 0.000063$). References: H1—C. Adloff et al., Eur. Phys. J. C21, 33 (2001); C. Adloff et al., Eur. Phys. J. C30, 1 (2003); ZEUS—S. Chekanov et al., Eur. Phys. J. C21, 443 (2001); S. Chekanov et al., Phys. Rev. D70, 052001 (2004); BCDMS—A.C. Benvenuti et al., Nucl. Phys. B483, 3 (1997); SLAC—L.W. Whitlow et al., Phys. Lett. B282, 475 (1992).