# 36. PLOTS OF CROSS SECTIONS AND RELATED QUANTITIES

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

## Structure Functions

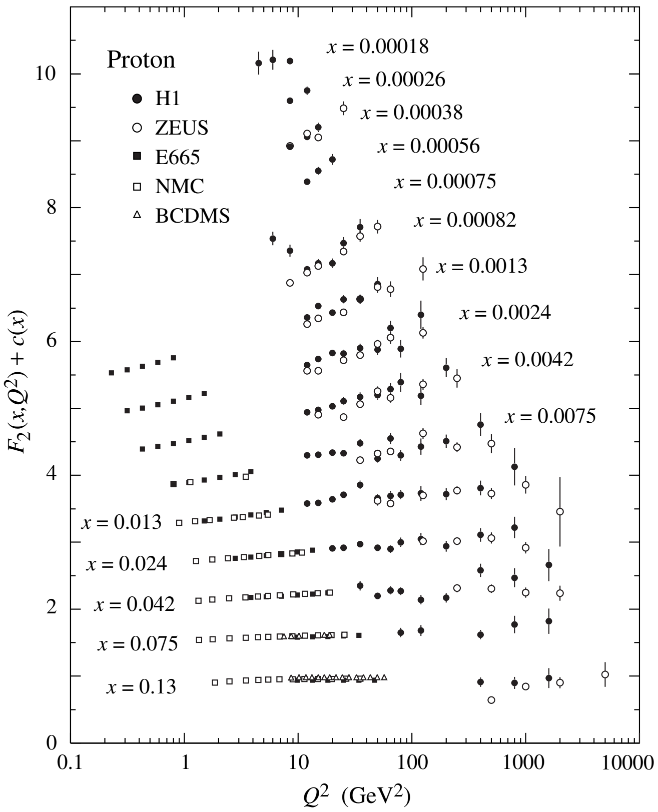


**Figure 36.1:** The proton structure function $F_2^p$ measured in electromagnetic scattering of electrons (H1, ZEUS) and muons (BCDMS, E665, NMC), in the kinematic domain of the HERA data ($x < 0.15$). Only statistical errors are shown. The data are plotted as a function of $Q^2$ in bins of fixed $x$. The H1 binning in $x$ was chosen for this plot; the ZEUS data are shifted by a small amount to the same $x$ values using a phenomenological parametrisation. The BCDMS, E665 and NMC data are rebinned to the $x$ values of the H1 data. For the purpose of plotting, a constant $c(x) = 0.6 i_x$ is added to $F_2^p$, where $i_x$ is the number of the $x$ bin ranging from $i_x = 1$ ($x = 0.13$) to $i_x = 15$ ($x = 0.00018$). References: **H1**—T. Ahmed *et al.*, Nucl. Phys. **B439**, 471 (1995); **ZEUS**—M. Derrick *et al.*, Z. Phys. **C65**, 379 (1995); **BCDMS**—A.C. Benvenuti *et al.*, Phys. Lett. **B223**, 485 (1989); **E665**—A.V. Kotwal, *Proc. XXXth Rencontres de Moriond*, Les Arcs 1995, ed. by J. Tran Thanh Van, and FERMILAB-Conf-95/046-Expt; **NMC**—E. Rondio, *Proc. Workshop on Deep Inelastic Scattering and QCD*, Paris 1995, ed. by J.-F. Laporte and Y. Sirois. (Courtesy of R. Voss, 1995.)

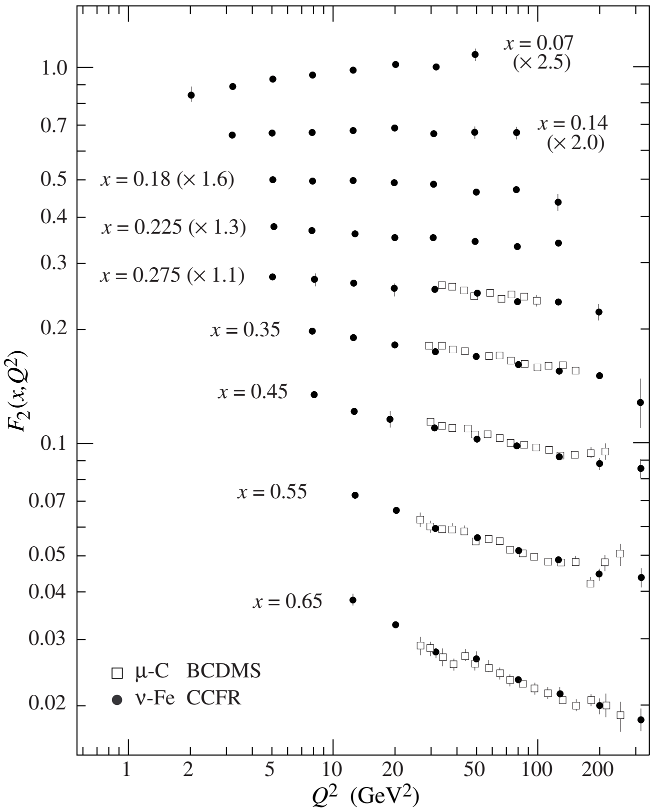


**Figure 36.2:** The nucleon structure function $F_2$ measured in deep inelastic scattering of muons on carbon (BCDMS) and neutrinos on iron (CCFR). The data are shown versus $Q^2$, for bins of fixed $x$, and have been scaled by the factors shown in parentheses. References: **BCDMS**—A.C. Benvenuti *et al.*, Phys. Lett. **B195**, 91 (1987); **CCFR**—S.R. Mishra *et al.*, NEVIS-1465 (1992). (Courtesy of R. Voss, 1995.)

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