

Muon Neutrino and Anti-Neutrino Charged-Current Total Cross Section

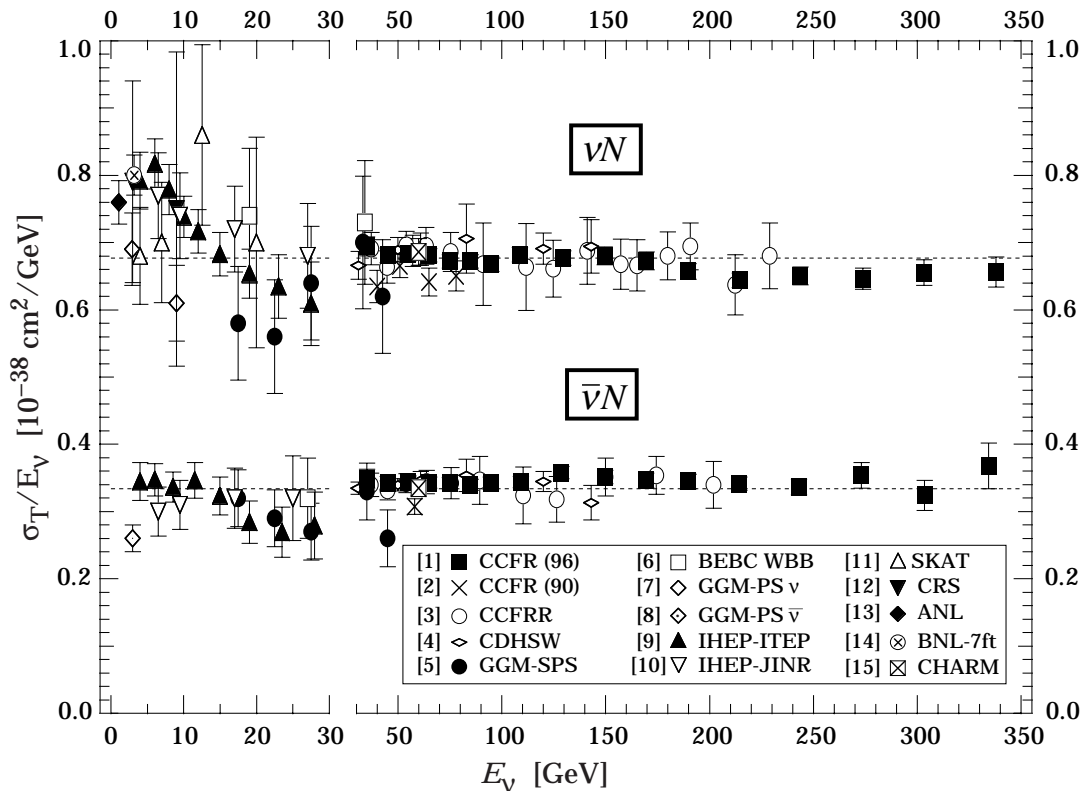


Figure 39.10: σ_T/E_ν , for the muon neutrino and anti-neutrino charged-current total cross section as a function of neutrino energy. The error bars include both statistical and systematic errors. The straight lines are the averaged values over all energies as measured by the experiments in Refs. [1–4]: $= 0.677 \pm 0.014$ (0.334 ± 0.008) $\times 10^{-38}$ cm²/GeV. Note the change in the energy scale at 30 GeV. (Courtesy W. Seligman and M.H. Shaevitz, Columbia University, 2001.)

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| <p>[1] W. Seligman, Ph.D. Thesis, Nevis Report 292 (1996);</p> <p>[2] P.S. Auchincloss <i>et al.</i>, Z. Phys. C48, 411 (1990);</p> <p>[3] D.B. MacFarlane <i>et al.</i>, Z. Phys. C26, 1 (1984);</p> <p>[4] P. Berge <i>et al.</i>, Z. Phys. C35, 443 (1987);</p> <p>[5] J. Morfin <i>et al.</i>, Phys. Lett. 104B, 235 (1981);</p> <p>[6] D.C. Colley <i>et al.</i>, Z. Phys. C2, 187 (1979);</p> <p>[7] S. Campolillo <i>et al.</i>, Phys. Lett. 84B, 281 (1979);</p> <p>[8] O. Erriquez <i>et al.</i>, Phys. Lett. 80B, 309 (1979);</p> | <p>[9] V.B. Anikeev <i>et al.</i>, Z. Phys. C70, 39 (1996);</p> <p>[10] A.S. Vovenko <i>et al.</i>, Sov. J. Nucl. Phys. 30, 527 (1979);</p> <p>[11] D.S. Baranov <i>et al.</i>, Phys. Lett. 81B, 255 (1979);</p> <p>[12] C. Baltay <i>et al.</i>, Phys. Rev. Lett. 44, 916 (1980);</p> <p>[13] S.J. Barish <i>et al.</i>, Phys. Rev. D19, 2521 (1979);</p> <p>[14] N.J. Baker <i>et al.</i>, Phys. Rev. D25, 617 (1982);</p> <p>[15] J.V. Allaby <i>et al.</i>, Z. Phys. C38, 403 (1988).</p> |
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