

from separate cross section, in practice there are problems already at the free-nucleon level (without taking into account nuclear structure effects)

Cross sections are measured at finite Q^2

$\Rightarrow$ one needs to know Q^2 dependence of form factors

ONLY EXISTING DATA $\Rightarrow$ BNL-736 (~1987)

"equivalent free" $\left(\frac{d\sigma}{dQ^2} \right)_{\nu, \bar{\nu}}$, for $\langle E_{\nu, \bar{\nu}} \rangle \approx 1 \text{ GeV}$
 $0.5 \leq Q^2 \leq 1 \text{ (GeV/c)}^2$

analysed taking

$$F_A^{\alpha} = \frac{g_A}{(1 + Q^2/M_A^2)}, \quad g_A = 1.26$$

$$F_A^S = \frac{g_A^S}{(1 + Q^2/M_A^2)}$$

$\leftarrow$ name M_A

$\Rightarrow$ data "compatible" with both $g_A^S \neq 0$ or $g_A^S = 0$ depending on M_A