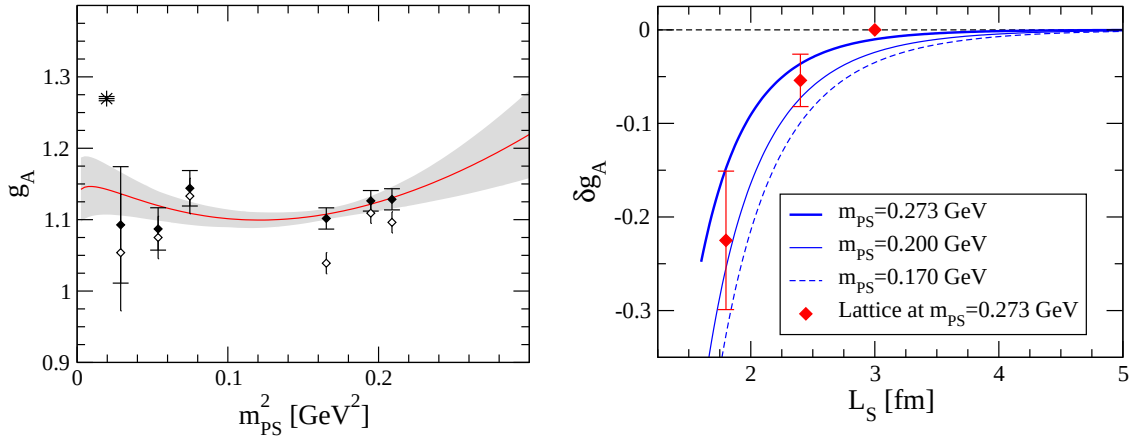


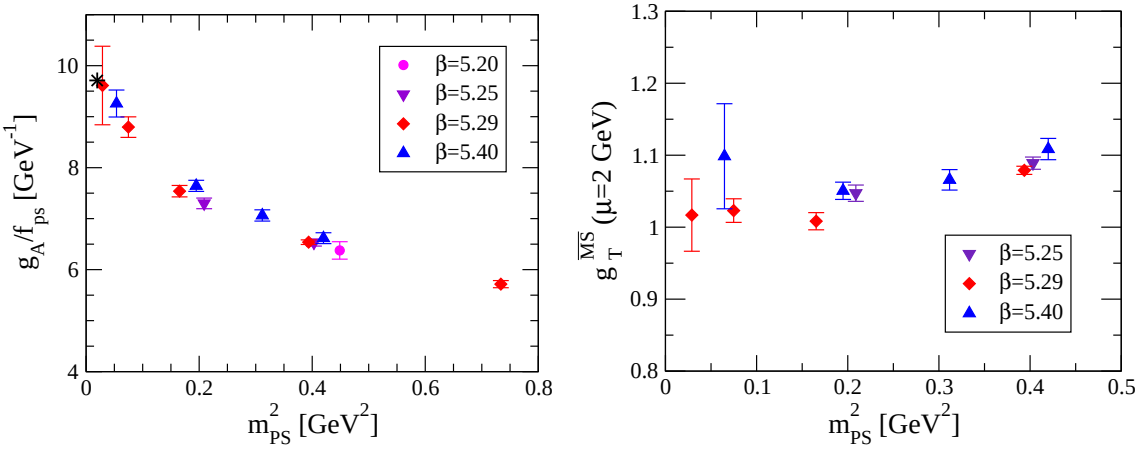
(a) (b)

Figure 2: The left panel shows g_A as a function of m_{PS}^2. The open and filled diamonds show the lattice results before and after correction of finite size effects, respectively. The star indicates the experimental result. The line shows a fit to the data as described in the text. The right panel shows the relative finite size effects determined on the lattice (symbols) and obtained from a fit to an expression from ChEFT.

our lattice results at $m_{PS} \simeq 270\,\mathrm{MeV}$. The shift predicted from ChEFT only slightly underestimates the relative shift computed on the lattice.

Also after correcting for finite size effects we observe a significant difference to the experimental value. It is interesting to notice that a much better agreement with the experimental value is observed for the ratio g_A/f_{PS} (see Fig. 3a). In this ratio the renormalization constant Z_A drops out.

In Fig. 3b we show our results for the nucleon tensor charge $\langle 1 \rangle_{\delta q} = g_T$. We observe only a very mild quark mass dependence and the data reveals no systematic discretization effects. This quantity is not well known experimentally. Our values are larger than the phenomenological results presented in [6].



(a) (b)

Figure 3: The left panel shows g_A/f_{PS} as a function of m_{PS}^2. The right panel shows our results for $g_T^{\overline{MS}}$ at a scale $\mu = 2\,\mathrm{GeV}$.