

into the unknown matrix element of θ_1 . Thus, in conclusion, an asymptotically free strong interaction modifies the free quark result only slightly.

One should perhaps emphasize here a rather obvious point: namely that as in all asymptotic application of the renormalization group the various results will be strictly correct if all large parameters, such as m_W^2 in the present context, are mathematically infinite. In actuality, m_W^2/μ^2 is certainly large, of order 1000, but finite. With $\log M_W^2/\mu^2 \sim 7$, one may be concerned that the next-to-leading operator θ_2 in Eq. (11) may not be completely negligible since $(\log M_W^2/\mu^2)^{C_2/2b^2} \sim (\log \frac{M_W^2}{\mu^2})^{-0.66}$. However, one must be warned that various terms down by inverse power of $(\log \frac{M_W^2}{\mu^2})$ had already been dropped in the renormalization group analysis of course. Thus strictly speaking the contribution of θ_2 cannot be taken seriously.