

Errata

Erratum: Relativistic description of quark-antiquark bound states. II. Spin-dependent treatment [Phys. Rev. D 42, 1651 (1990)]

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There are two errors in Eq. (6b) for the vector-exchange operator F_V which were pointed out to us by W. Lucha, H. Rupperecht, and F. F. Schöberl. First, the overall sign of the third line of Eq. (6b) should be changed. Second, the last term in the fourth line of Eq. (6b) should be replaced by

$$-\left[\frac{\omega_1+m_1}{\omega'_1+m_1} + \frac{\omega_2+m_2}{\omega'_2+m_2} \right] \mathbf{p} \cdot \boldsymbol{\sigma}_1 \mathbf{p}' \cdot \boldsymbol{\sigma}_2 \rightarrow -\frac{\omega_1+m_1}{\omega'_1+m_1} \mathbf{p} \cdot \boldsymbol{\sigma}_1 \mathbf{p}' \cdot \boldsymbol{\sigma}_2 - \frac{\omega_2+m_2}{\omega'_2+m_2} \mathbf{p}' \cdot \boldsymbol{\sigma}_1 \mathbf{p} \cdot \boldsymbol{\sigma}_2 .$$

The errors occurred when Eq. (13a) of Ref. 1 (I) was reduced to the form given [using Eqs. (A13) of I] for inclusion in this paper. The correct results were used in the calculations reported.

The overall sign of F_S in Eq. (6a) would also be negative for the interaction kernel in Eq. (1) [or Eq. (18) of I]. The results given in Eqs. (5) and (6) [or Eqs. (12) and (13) of I] and used throughout the calculations correspond to an interaction

$$\Lambda^+(\mathbf{p})\gamma^0 \int \frac{d^3\mathbf{p}'}{(2\pi)^3} [V_V(|\mathbf{p}-\mathbf{p}'|)\gamma_\mu \Phi(\mathbf{p}')\gamma^\mu - V_S|\mathbf{p}-\mathbf{p}'|)\Phi(\mathbf{p}')] \gamma^0 \Lambda^-(-\mathbf{p})$$

with the opposite sign of V_S . This convention incorporates a relative sign which appears in particle-exchange models for the particle-antiparticle interaction, and leads to a nonrelativistic limit $F_S, F_V \rightarrow 1$ in which the total potential is $V_S + V_V$ as noted later. We regret any confusion which our unexplained change of sign may have caused.

We would like to thank Dr. Lucha, Dr. Rupperecht, and Dr. Schöberl for pointing out the errors.

¹A. Gara, B. Durand, L. Durand, and L. J. Nickisch, Phys. Rev. D 40, 843 (1989).

Erratum: On the $\phi \rightarrow K^0 \bar{K}^0 \gamma$ decay [Phys. Rev. D 42, 3253 (1990)]

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The following are typographical errors which, of course, do not affect our conclusions. Equation (3) should read

$$I(a,b) = \frac{1}{2(a-b)} - \frac{2}{(a-b)^2} \left[f \left(\frac{1}{b} \right) - f \left(\frac{1}{a} \right) \right] + \frac{a}{(a-b)^2} \left[g \left(\frac{1}{b} \right) - g \left(\frac{1}{a} \right) \right], \tag{3}$$

whereas the unnumbered equation underneath (4b) should read

$$n_{\pm} = \frac{1}{2} [1 \pm (1-4x)^{1/2}] .$$

Erratum: Strange quarks in the deuteron [Phys. Rev. D 42, 3010 (1990)]

Steven J. Pollock

In the text, isoscalar form factors were normalized to be the sum of proton and neutron, not the average. However, in the computer program generating the figures, the opposite convention was used, *without* correcting the normalization

on the s -quark pieces. This was almost completely internally self-consistent (overall asymmetries, cross sections, and figures of merit are correct) but resulted in a *magnification* of strange vector contributions by 2. The modified curves are all linear in this contribution; thus if one simply substitutes double the stated assumed s -quark contribution (e.g., read $\mu^{\text{st}}=0.8$ in place of 0.4 in Figs. 1–4 and 6) the curves are again accurate.

This does not affect any of the qualitative conclusions of the paper, but does have the quantitative result that the deuteron is only half as sensitive to s -quark contributions as stated. The actual value of μ^{st} is not yet known, and if it is indeed fairly large, the conclusion that elastic scattering from the deuteron would be a potentially useful tool to learn about it is still valid.