Errata

Relativistic Corrections to the Impulse Approximation in Elastic Electron-Deuteron Scattering, Franz Gross [Phys. Rev. **142**, 1025 (1966)]. With the help of N. K. Bewtra, the equations of this paper have been recalculated. The following algebraic mistakes have been found. None of these alter the conclusions of the paper, although they should be noted for future reference.

Equation (1.1) should read

$$\frac{d\sigma}{d\Omega}=\frac{d\sigma}{d\Omega}\bigg|_{\text{N.S.}}\bigg\{G_C^2+\frac{q^4}{18M_d^4}G_Q^2-\frac{q^2}{6M_d^2}\times\bigg[1+2\bigg(1-\frac{q^2}{4M_d^2}\bigg)\tan^2(\tfrac{1}{2}\theta)\bigg]G_M^2\bigg\}.$$

The right-hand side of Eq. (1.2) should be multiplied by a factor of e, the electronic charge, and the coefficient of G_M should be $1/(4M)$ instead of $1/(2M_d)$. The large bracket multiplying the first term of the expression for G_M in Eq. (1.3) should be replaced by

$$[(1+\mathbf{q}^2/32M^2)F_C-(F_C-F_M)(3\mathbf{q}^2/16M^2)].$$

The coefficient of Δ^ν in Eq. (2.4) should be $(2/\pi)^{1/2}$ instead of $(2\pi)^{1/2}$, and in the discussion immediately following this equation the normalization of the deuteron polarization vector should read $\xi_\mu\xi^\mu=-1$.

A factor of $\alpha^4/2M^2$ should be subtracted from the right-hand side of Eq. (2.12).

The sign of the $w_2(r)$ term in $A'(t_0)$ [Eq. (2.15)] should be minus instead of plus. This means that the $\sqrt{2}w_2'$ term in ϕ_1 [Eq. (2.16)] should not appear. Equation (3.2) should read

$$F^\mu(q)=F_1(q^2)\gamma^\mu+i[F_2(q^2)\sigma^{\mu\nu}/2M](p_2-p_1)_\nu.$$

The wave function ψ, Eq. (A2), becomes

$$\psi_1{}^0=\tfrac{1}{12}u+(1/24)xu'+(1/12\sqrt{2})w,$$
$$\psi_1{}^1=-\tfrac{1}{2}u+\tfrac{1}{2}xu'+\tfrac{1}{4}\mathcal{K}u+(1/\sqrt{2})w,$$
$$\psi_1{}^2=-\tfrac{1}{12}u+\tfrac{1}{12}xu'+(1/6\sqrt{2})w,$$
$$\psi_2{}^0=(1/24)xw',$$
$$\psi_2{}^1=\tfrac{1}{2}xw'-3w+\tfrac{1}{4}\mathcal{K}w,$$
$$\psi_2{}^2=\tfrac{1}{12}xw'-\tfrac{1}{4}w,$$
$$\psi_3=+\tfrac{1}{4}u-\tfrac{1}{4}xu'-(1/2\sqrt{2})w-(1/4\sqrt{2})xw',$$
$$\psi_4{}^0=-\tfrac{3}{2}w,$$
$$\psi_4{}^1=\tfrac{3}{8}w.$$

Note that the w_I term no longer appears. In Eq. (A4) a factor of $(q^2/4M^2)(F_C-F_M)i\vec{\nabla}^k/M$ should be subtracted from the right-hand side of j^k. Finally, the expressions given at the end of the Appendix must be modified. I_C, I_Q, $I_M{}^1$, and J_C are correct as they are. The coefficient of $P_2(z)$ in $I_M{}^2$ should be replaced by

$$-(1/2\sqrt{2})(w\psi_1+\sqrt{2}w\psi_2+u\psi_2).$$

The right-hand side of J_Q should be multiplied by i so that it reads

$$J_Q=-6\sqrt{2}i\sum\{\cdots\}.$$

The coefficient of $j_2(\tau)$ in the first term of $J_M{}^1$ is

$$(1/\sqrt{2})(\tfrac{1}{2}u\hat{w}+\tfrac{1}{2}w\hat{u}+w\hat{w}/\sqrt{2})$$

instead of

$$(1/\sqrt{2})(u\hat{w}+w\hat{w}/\sqrt{2}).$$

The sign of the entire right-hand side of $J_M{}^2$ should be changed, and *after* making this change the term

$$\frac{1}{2M^2}\sum\frac{w}{\sqrt{2}}\bigg(\frac{5}{2\sqrt{2}}\frac{w'}{x}+\frac{1}{2\sqrt{2}}w''+\frac{2}{\sqrt{2}}\frac{w}{x^2}\bigg)P_2(z)$$

should be added to the right-hand side.

These changes alter Eqs. (4.7) and (4.8) slightly, with the end result that

$$S\approx-1/(8M^2).$$

A quantitative discussion of these corrections will be presented elsewhere.

Evaluation of Meson-Baryon Coupling Constants from Current Divergences, K. Raman [Phys. Rev. **149**, 1122 (1966)]. (A) The coupling constants G as defined in this paper (see footnote 8) differ by numerical factors $f\begin{pmatrix}1 & a & 2\\ \alpha & \beta & \gamma\end{pmatrix}$ from the usual Yukawa coupling constants. To obtain the usual coupling constants [and to correct an error in the second term on the right-hand side of (8)], the terms on the right of Eq. (8) corresponding to the $\Sigma\Lambda\pi$, $\Sigma\Sigma\pi$, ΛNK, $\Xi\Lambda K$, $\Xi\Sigma K$, $NN\eta$, and $\Xi\Xi\eta$ vertices should be multiplied by $2/\sqrt{3}$, 2, $-\sqrt{3}$, $\sqrt{3}$, -1, $\sqrt{3}$, and $-\sqrt{3}$, respectively, and so also the corresponding terms in the first row of each of Tables I–III. The values of $G^2/4\pi$ for the $\Sigma\Lambda\pi$ and $\Sigma\Sigma\pi$ vertices should be multiplied by $\frac{4}{3}$ and 4, respectively; and for each of the vertices ΛNK, $\Xi\Lambda K$, $NN\eta$, and $\Xi\Xi\eta$, by 3. The values of $G^2/4\pi$ for the $\Sigma\Lambda\pi$, $\Sigma\Sigma\pi$, ΛNK, and $\Xi\Xi\eta$ vertices given in Table III are then replaced by 12.5, 11.6, 16.8, and 27.6, respectively.

This value of $G_{\Lambda NK}{}^2/4\pi$ is much larger than the recent experimental estimate of 4.8 ± 1.0 from KN forward dispersion relations [M. Lusignoli, M.