 E R R A T A

RELATIVISTIC SCATTERING OF TWO EQUAL-MASS PARTICLES. William B. Rolnick and R. M. Thaler [Phys. Rev. Letters 14, 572 (1965)],
and

RELATIVISTIC SMALL-ANGLE SCATTERING OF TWO CHARGED PARTICLES. William B. Rolnick and R. M. Thaler [Phys. Rev. Letters 15, 117 (1965)].

Our use of the potential $Z_1 Z_2 e^2 / r_{12}$ in the center-of-momentum system yields a forward-scattering cross section which does not agree with the one-photon-exchange result at relativistic velocities. Thus, the calculation we proposed would have to be modified through the use of $N Z_1 Z_2 e^2 / r_{12}$ for the longest range part of the equivalent electromagnetic Bakamjian-Thomas potential. The value of N which is required to yield the same forward-scattering cross section as the one-photon exchange cross section is $N = 1 + k^2 c^2 / E_1 E_2 = 1 - \vec{v}_1 \cdot \vec{v}_2 / c^2$, where $\vec{v}_i$ is the velocity of particle i and k is the magnitude of the momentum of either particle in the center-of-momentum system. The term $Z_1 Z_2 e^2 \vec{v}_1 \cdot \vec{v}_2 / c^2 r$ in the interaction may be interpreted as the current-current contribution, which at relativistic velocities is of the same order as the static part.

The corrected phase of the small-angle scattering amplitude as calculated by us is then

$$2(\sigma_0 - \eta \ln \frac{1}{2} \theta_{\text{c.m.}}), \quad (1)$$

where $\theta_{\text{c.m.}}$ is the center-of-momentum scattering angle with

$$\eta = (1 - \vec{v}_1 \cdot \vec{v}_2 / c^2) Z_1 Z_2 e^2 / \hbar |\vec{v}_1 - \vec{v}_2|, \quad (2)$$

and

$$\sigma_0 = \arg \Gamma(1 + i\eta). \quad (3)$$

In the ultrarelativistic limit

$$\eta \rightarrow Z_1 Z_2 e^2 / \hbar c. \quad (4)$$

We are indebted to Dr. John S. Bell for pointing out to us that our result could not be in agreement with the one-photon-exchange cross-section.

ELECTRODYNAMICS OF INTERMEDIATE BOSONS AND CP NONINVARIANCE. Tai Tsun Wu [Phys. Rev. Letters 15, 718 (1965)].

The sentence after Eq. (14) should read as follows: "The additional term is invariant under C but not P or T ."