ERRATA

THERMAL FLUCTUATIONS AND EXPERIMENTS ON THE FREE FALL OF ELECTRONS. Humphrey J. Maris [Phys. Rev. Lett. 33, 1177 (1974)].

The approximation used in Eq. (4) to calculate the correlation function for the electric field is unsatisfactory for the present purpose. The theory of electromagnetic field fluctuations near conductors has been developed by Rytov.[1] It can be shown quite generally using Rytov's approach that, if the resistivity of the conductor is independent of temperature, the Fourier transform of the field-field correlation function

$$I(\omega) = \int_{-\infty}^{\infty} dt \langle E(0)E(t)\rangle e^{i\omega t}$$

must have the property that $I(0)$ is proportional to the first power of the temperature. This is in contrast with the approximate result obtained from Eq. (4), which is proportional to T^3. The approximate theory gives $I(\omega)$ as a sum of a set of Lorentzian functions. The ith Lorentzian has width γ_i and center frequency ω_i, where γ_i and ω_i are, respectively, the damping and frequency of the ith normal mode of the cavity. This is a reasonable approximation to $I(\omega)$ at frequencies near to one of the $\{\omega_i\}$. However, the approximation incorrectly gives $I(0)$ proportional to T^3, in disagreement with the general theory of Rytov. The correct value of $I(0)$ is of the order of

$$\rho k_B T / r^2 d,$$

where ρ is the bulk resistivity, r is the radius of the metal tube, and d is the wall thickness. Using this expression for $I(0)$ one finds that after an electron has been in the tube for 0.2 sec it will have a random velocity of the order of 1 cm $\sec^{-1}$. This is much smaller than our previous estimate, and indicates that even when the acceleration of the electron is as small as $0.1g$ thermal fluctuations are a fairly small effect. I should like to thank Dr. Herring for helpful discussions.

[1]See, for example, M. A. Leontovitch and S. M. Rytov, Zh. Eksp. Teor. Fiz. 23, 246 (1962); S. M. Rytov, *Theory of Electric Fluctuations and Thermal Radiation* (Air Force Cambridge Research Center, Bedford, Mass., 1959).

TEST OF PARITY CONSERVATION IN p-p SCATTERING. J. M. Potter, J. D. Bowman, C. F. Hwang, J. L. McKibben, R. E. Mischke, D. E. Nagle, P. G. Debrunner, H. Frauenfelder, and L. B. Sorensen [Phys. Rev. Lett. 33, 1307 (1974)].

The third and fourth sentences were contracted and should read, "This lack of agreement emphasizes the necessity for studying the nucleon-nucleon system through p-p scattering.[5,6] Although the parity admixture in p-p scattering is estimated to be a few parts in 10^7, the actual effect, which is sensitive to the details of the interaction including the possible presence of neutral currents could be considerably different."

The last sentence of the first paragraph should read, "Orders-of-magnitude improvement are needed to test the various models of the weak interaction."