Errata

Erratum: Quark indistinguishability and the structure functions of the nucleon in a field-theoretic quark model [Phys. Rev. D 21, 1231, (1980)]

S. P. Misra

Equation (2.2) should read

$$U(L_1)Q_{Ir_1}(k_1)U^{-1}(L_1)=(p_1^0/m_1)^{1/2}Q_{Ir_1}(L_1k_1). \tag{2.2}$$

Equation (2.3) should read

$$U^{-1}(L_1)Q_{Is}^{D}(k)^{\dagger}U(L_1)=[(L_1^{-1}k)^0/k^0]^{1/2}D_{s's}(k, L_1^{-1})Q_{Is'}^{D}(L_1^{-1}k)^{\dagger}. \tag{2.3}$$

Erratum: Interpretation of new evidence for free quarks [Phys. Rev. D 20, 1736 (1979)]

Jay Orear

In this paper I hypothesized that both u and d free quarks are stable ($|m_d - m_u| < m_e$) in order to explain the two signatures of residual charge ($+\frac{1}{3}$ and $-\frac{1}{3}$) observed by Fairbank and collaborators. I also pointed out that such quarks would charge exchange to positive-charge states during the fourth minute of the big bang and thus explain the surface effects observed by Fairbank and collaborators.

Professor S. Olsen of the University of Rochester has pointed out to me that because of electron capture such quarks would not remain positively charged. I now find that my hypothesis that both quarks be stable was unnecessary, and because of Olsen's comment, unwanted. Suppose after several minutes of β decay only one species of quark remained, for example, u and $\bar{u}$. Then during the first hour of the big bang all the $\bar{u}$'s would be captured by He^{++} to form $(\bar{u}He)^{+4/3}$ which with ~150 keV of binding and radius of 10^{-12} cm would behave as a positive "quark" of signature $q_r = +\frac{1}{3}$. Since the remaining u quarks would have the opposite signature, the remaining discussion is unchanged.