General Chiral $SU_2 \times SU_2$ Lagrangian and Representation Mixing.

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(*Lett. Nuovo Cimento*, **9**, 9 (1974))

1) Equation (1) should read

$$\mathcal{L}_{\pi\psi} = -\bar{\psi}\gamma_\mu\partial_\mu\psi - m\bar{\psi}U\psi + \dots$$

2) The last term in eq. (5) should read

$$-if^2(1+g')\bar{N}\gamma_5\gamma_\mu\boldsymbol{\tau}\cdot\mathbf{X}_{5\mu}N.$$

3) The last term in eq. (7) should read

$$-\frac{1}{2}m_e^2\left(\boldsymbol{\rho}_\mu + \frac{2f^2}{g}\mathbf{X}_\mu\right)^2.$$

4) Equation (16) should read

$$V_\mu^\alpha = \frac{1}{4f^2}\partial_\mu u^\alpha \quad \text{with } u^4 = \sigma, \quad u^i = 2f\varrho\varphi^i.$$

5) Equation (19) should read

$$\exp\left[i\theta\int(\varphi^2 + \pi_0^2)d^3x\right]\boldsymbol{\varphi}\exp\left[-i\theta\int(\varphi^2 + \pi_0^2)d^3x\right] = \boldsymbol{\pi}_0 \quad \text{with } \theta = 45^\circ.$$

6) Footnote ⁽¹¹⁾ should read: Alternatively, the factor $2(1+\sigma)^{-1}$ can be transformed away by defining a new nucleon field according to $B = \sqrt{2}(1+\sigma)^{-1}N$ as will be discussed elsewhere.

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