Errata

Erratum: t-quark mass predicted from a sum rule for lepton and quark masses [Phys. Rev. D 22, 2921 (1980)]

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Equations (1) and (5) should read as

$$m_t \simeq \sqrt{8/3}\, m_W \simeq 132 \text{ GeV}$$

and

$$m_H \simeq 2m_t \simeq \sqrt{32/3}\, m_W \simeq 264 \text{ GeV} .$$

Erratum: B-meson decay constant on the lattice and renormalization [Phys. Rev. D 40, 1529 (1989)]

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We apologize for a mistake in Eq. (C23). It should read

$$J^d = \frac{4}{3} g^2 \frac{1}{16\pi^2} \left[(F_{0000} + F_{0001} + 4 + 2\gamma_E) + 4 \ln \frac{t}{2} - \frac{t}{a} \frac{1}{2\pi} \int_{-\pi}^{+\pi} d^3k \frac{1}{\sum_\lambda (1-\cos k_\lambda)} \right] . \tag{C23}$$

The modification comes from the fact that, contrary to what we said in the parentheses just preceding (C23), the difference between

$$\frac{\sin k_0 t \, \sin k_0}{2\pi(1-\cos k_0)}$$

and the Dirac distribution decreases in $1/t$, leading to a finite contribution when multiplied by t.

The corrected Eq. (3.7) is now

$$P_{\text{latt}}(t) = \left\{ 1 + \frac{\alpha_s}{\pi} \left[-2\ln(m_q a) - \gamma_E + \frac{2F_{0000}+F_{0001}}{3} - \frac{17}{6} + \frac{8\pi^2}{3} \left[\frac{m_q t}{2\pi} \right]^{1/2} \right. \right.$$
$$\left. \left. + \frac{1}{12\pi^2} \int_{-\pi}^{+\pi} d^4\mathbf{k} \left[\frac{r^2 \sum_\lambda \cos k_\lambda}{2\Delta_2} - \frac{\sum_\lambda \sin^2 k_\lambda \sin^2 \frac{k_\lambda}{2}}{4\Delta_1^2 \Delta_2} + \frac{2\sum_\lambda \sin^4 \frac{k_\lambda}{2}}{\Delta_1^2 \Delta_2} + \frac{2r^2-1}{2\Delta_2} + \frac{1}{2\Delta_1} \right] \right] \right\} P^a_{\text{latt}}(t) e^{-\delta^L m_b t} \tag{3.7}$$

and in Eq. (3.9) the factor $-\frac{9}{2}$ has to be replaced by $-\frac{1}{6}$. Numerically, Eq. (3.9) gives now $\ln C^2 \simeq 8.76$, with 1.50 coming from Fig. 3(d) (heavy-quark renormalization). The final results are only slightly modified: namely, numerically, we get, for $a^{-1}=2.6 \text{ GeV}^{-1}$, $m_b = 4.5$ GeV,

$$Z(a,m_q,M_b)^{1/2}=0.78, \quad \Lambda_{\overline{\text{MS}}}=200 \text{ MeV}; \quad Z(a,m_q,M_b)^{1/2}=0.81, \quad \Lambda_{\overline{\text{MS}}}=100 \text{ MeV} , \tag{4.3}$$

and keeping $\Lambda_{\overline{\text{MS}}}=200$ MeV we get

$$Z(a,m_q,M_b)^{1/2}=0.79, \quad a^{-1}=1.6 \text{ GeV}; \quad Z(a,m_q,M_b)^{1/2}=0.77, \quad a^{-1}=3.0 \text{ GeV} . \tag{4.5}$$

