Phenomenology of Particle Physics
Errata (24/12/22)

1. **p. 274**: The first line of Eq. (9.77) should read:

$$\mathcal{L}_{int} = -g(\phi_1^4 + \phi_2^4 + \phi_3^4) - \lambda\sigma(\phi_1^2 + \phi_2^2 + \phi_3^2) + \cdots \tag{1}$$

2. **p. 444**: In point 3, one should read “magnetron frequency” instead of “magneton frequency”.
3. **p. 463**: Equation (14.123) should read $\vec{E}(x, y, z) = -\frac{V_0}{r_0^2}\,(x, y, -2z)$ instead of $\vec{E}(x, y, z) = \frac{V_0}{r_0^2}\,(x, y, -2z)$.
4. **p. 463**: Accordingly, equation (14.124) should also have a minus sign in front of the first term:

$$\begin{pmatrix} \ddot{x} \\ \ddot{y} \\ \ddot{z} \end{pmatrix} = -\frac{eV_0}{mr_0^2} \begin{pmatrix} x \\ y \\ -2z \end{pmatrix} + \omega_0 \begin{pmatrix} \dot{y} \\ -\dot{x} \\ 0 \end{pmatrix} \tag{2}$$

5. **p. 551**: Ex 17.3, point c, one should read $\sin\theta = 1/\sqrt{3}$ instead of $\theta = 1/\sqrt{3}$.
6. **p. 814**: Eq. (26.91) should read $\sigma(e^+e^- \to Z^0 \to \ell^+\ell^-) = ...$ instead of $\sigma(e^+e^+ \to Z^0 \to \ell^+\ell^-) = ...$
7. **p. 814**: Eq. (26.93), same
8. **p. 814**: Eq. (26.94), same
9. **p. 994**: Appendix A.13, the first sentence should refer to “Gauss’s theorem” instead of “Stokes’s theorem”.