Errata for
The Feynman Lectures on Physics Volume III
New Millennium Edition (4th printing)

The errors in this list appear in the 4th printing of *The Feynman Lectures on Physics: New Millennium Edition* (2011) and earlier printings and editions; these errors have been corrected in the 4th paperback printing and will be corrected in the 5th hardback printing of the *New Millennium Edition* (2011).

Errors are listed in the order of their appearance in the book. Each listing consists of the errant text followed by a brief description of the error, followed by corrected text.

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III:21-17, par 1

For convenience, I will write

$$\delta_a = \delta_0 + \frac{q_e}{\hbar}\Phi, \qquad \delta_b = \delta_0 - \frac{q_e}{\hbar}\Phi.$$

Sign error; conflicts with equation 21.51, $\delta_b - \delta_a = \frac{2q_e}{\hbar}\Phi.$

For convenience, I will write

$$\delta_a = \delta_0 - \frac{q_e}{\hbar}\Phi, \qquad \delta_b = \delta_0 + \frac{q_e}{\hbar}\Phi.$$

III:21-17, Eq 21.52

Then,

$$J_{\text{total}} = J_0\left\{\sin\left(\delta_0 + \frac{q_e}{\hbar}\Phi\right) + \sin\left(\delta_0 - \frac{q_e}{\hbar}\Phi\right)\right\}$$

$$= 2J_0 \sin\delta_0 \cos\frac{q_e\Phi}{\hbar}. \tag{21.52}$$

For consistency with the correction to δ_a and δ_b above, and with the text, which describes J_{total} as "the sum of J_a and J_b,"

$$J_{\text{total}} = J_0\left\{\sin\left(\delta_0 - \frac{q_e}{\hbar}\Phi\right) + \sin\left(\delta_0 + \frac{q_e}{\hbar}\Phi\right)\right\}$$

$$= 2J_0 \sin\delta_0 \cos\frac{q_e\Phi}{\hbar}. \tag{21.52}$$