Errata for
The Feynman Lectures on Physics Volume II
New Millennium Edition (5th printing)

The errors in this list appear in the 5th printing of *The Feynman Lectures on Physics: New Millennium Edition* and earlier printings and editions; these errors have been corrected in the 6th printing of the New Millennium Edition.

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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II:7-11, Eq 7.43

$$\frac{d^2F_n}{dz^2}=\frac{4\pi n^2}{a^2}F_n \qquad (7.43)$$

Missing exponent '2' on π . (Compare to Eq. 7.42.)

$$\frac{d^2F_n}{dz^2}=\frac{4\pi^2 n^2}{a^2}F_n \qquad (7.43)$$

II:26-10, par 2 [approved]

So when we move along perpendicular to a static electric field, we see a reduced ***E*** and an added transverse ***B***.

Inaccurate statement (because $E'_{\parallel}=E_{\parallel}$ and $E'_{\perp}>E_{\perp}$, so $E'>E$) .

So when we move along perpendicular to a static electric field, we see an added transverse ***B***.

II:32-1, Table 32-1, row 2 [approved]

Index of gases	Vol. I Chap 31	$n=1+\frac{1}{2}\frac{Nq_e^2}{\varepsilon_0\left(\omega_0^2-\omega^2\right)}$

Electron mass 'm' is missing in the denominator of the second term on the right (as per Eqs. I:31-19 and II:32-26).

Index of gases	Vol. I Chap 31	$n=1+\frac{1}{2}\frac{Nq_e^2}{\varepsilon_0 m\left(\omega_0^2-\omega^2\right)}$

II:32-9, Table 32-2, col. J heading [approved]

$N_0\alpha_2$
(g/liter)

Wrong units (strike). [Note: α_2 (the polarizability of a sugar molecule) has dimensions of volume (see FLP II:11), so column J also has dimensions of volume, or volume per mole.]

$N_0\alpha_2$

II:39-8, par 2

This is again a vector wave equation for waves with the speed $C_2 = \sqrt{\mu/\rho}$. … and $C_2 = C_{\text{shear}}$.

Wrong index (‘2’ vs. ‘1’, 2 occurrences).

This is again a vector wave equation for waves with the speed $C_1 = \sqrt{\mu/\rho}$. … and $C_1 = C_{\text{shear}}$.

II:42-11, par 2 [approved]

Since the energy E_0 has the gravitational mass E_0/c^2 the photon has a mass (*not* rest mass) $\hbar\omega/c^2$, …

Feynman never said this; the term “gravitational mass” is not defined anywhere in FLP, and it is questionable whether it applies to a photon.

Since the energy E_0 has the relativistic mass E_0/c^2 the photon has a mass (*not* rest mass) $\hbar\omega/c^2$, …