

Typos in The Feynman Lectures on Physics Volume I New Millennium Edition (first printing)

The typographical errors in this list were inadvertently introduced into *The Feynman Lectures on Physics: New Millennium Edition* during the process of conversion to LaTeX, and will be corrected in future printings.

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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I:ix, original title page

Mathew Sands

*Professor
California Institute of Technology*

Wrong title. (Change requested by Matthew Sands)

Mathew Sands

*Professor of Physics
California Institute of Technology*

I:2-6, par 2

We can write the law like this: $\Delta x \Delta p \geq \hbar/2$, but the explanation of a very mysterious paradox: ...

Typographical error (missing words).

We can write the law like this: $\Delta x \Delta p \geq \hbar/2$, but we shall explain it in more detail later. This rule is the explanation of a very mysterious paradox: ...

I:8-2, Table 8-2, legend

t (min) | s (ft) ...

Typographical error ('min' instead of 'sec').

t (sec) | s (ft) ...

I:8-3, par 2

“That’s impossible, sir, I was travelling, for only seven minutes. ...

Typographical error (superfluous comma after ‘travelling’).

“That’s impossible, sir, I was travelling for only seven minutes. ...

I:8-5, par 1

So, we take one-thousandth of a second more than 5 see, or 5.001 sec, ...

Typographical error ('see' instead of 'sec').

So, we take one-thousandth of a second more than 5 sec, or 5.001 sec, ...

I:11-4, par 1

Let us assume that a force F , ... Moe see the components of F along his axes... the formulas (11.5) and (11.6), for coordinates of P and components of F , ...

Vectors should be bold (\mathbf{F} vs. F – three occurrences).

Let us assume that a force \mathbf{F} , ... Moe see the components of \mathbf{F} along his axes... the formulas (11.5) and (11.6), for coordinates of P and components of \mathbf{F} , ...

I:11-7, Fig 11-5

Typographical error: the label font should be san serif, not roman.

I:11-7, par 5

It is also. the right definition of velocity because ...

Typographical error (superfluous '.').

It is also the right definition of velocity because ...

I:12-9, Eq 12.7

$$E = \sum_i \frac{q_i \mathbf{r}}{4\pi\epsilon_0 r_i^3} . \tag{12.7}$$

Typographical error (missing subscript on \mathbf{r}).

$$E = \sum_i \frac{q_i \mathbf{r}_i}{4\pi\epsilon_0 r_i^3} . \tag{12.7}$$

I:13-8, par 1, first unnumbered equation

$$dC_x = -G \frac{dm r_x}{r^3} = -G \frac{dm a}{r^3} .$$

Typographical error (space needed after differential dm – two occurrences).

$$dC_x = -G \frac{dm r_x}{r^3} = -G \frac{dm a}{r^3} .$$

I:13-8, par 1, second unnumbered equation

$$dC_x = -G\mu 2\pi\rho \frac{d\rho a}{r^3} .$$

Typographical error (space needed after differential $d\rho$).

$$dC_x = -G\mu 2\pi\rho \frac{d\rho a}{r^3} .$$

I:15-4, par 3, unnumbered Eq

$$(ct_3)^2 = L^2 + (2ut_3)^2$$

Typographical error (superfluous digit '2' in second term on right).

$$(ct_3)^2 = L^2 + (ut_3)^2$$

I:15-5, par 5

To the man in the ship the time is simply $2L/c$, but to the other observer it is $(2L/c)\sqrt{-u^2/c^2}$ (Eq. 15.5).

Typographical error (missing '1' under radical).

To the man in the ship the time is simply $2L/c$, but to the other observer it is $(2L/c)\sqrt{1-u^2/c^2}$ (Eq. 15.5).

I:16-5, par 4, unnumbered Eq.

$$y = y' = v_y t ,$$

Typographical error (missing prime on t).

$$y = y' = v_y t' ,$$

I:16-7, Eq 16.10

$$m_u = \frac{m_v}{\sqrt{1-u^2/c^2}} . \tag{16.10}$$

Typographical error (' m_v ' vs. ' m_0 ').

$$m_u = \frac{m_0}{\sqrt{1-u^2/c^2}} . \tag{16.10}$$

I:17-4, par 4

it will take four years before what it is doing "now" can affect us.

Typographical error (wrong kind of quotation marks).

it will take four years before what it is doing “now” can affect us.

I:17-5, par 1

... but the fourth quantity would look: like an ordinary scalar ...

Typographical error (superfluous colon).

but the fourth quantity would look like an ordinary scalar

I:19-9, par 3

If m moves only along the radius, ...

Typographical error (' m ' should be italic).

If m moves only along the radius, ...

I:20-3, Eq 20.7

$$\tau_{z'x'} = \dots = \tau_{zx} \cos \theta + \tau_{yz} \sin \theta. \quad (20.7)$$

Typographical error ('+' vs. '-').

$$\tau_{z'x'} = \dots = \tau_{zx} \cos \theta - \tau_{yz} \sin \theta. \quad (20.7)$$

I:20-5, par 1

This is a vector summary of the three equations $\tau_z = yF_z - zF_y$, etc. .

Typographical error (' τ_z ' vs. ' τ_x ').

This is a vector summary of the three equations $\tau_x = yF_z - zF_y$, etc. .

I:23-4, par 4

Using these in (23.8), we see that $\omega_0^2 \omega^2 + i\gamma\omega \approx 2\omega_0 (\omega_0 - \omega + i\gamma/2)$, ...

Typographical error (missing '-').

Using these in (23.8), we see that $\omega_0^2 - \omega^2 + i\gamma\omega \approx 2\omega_0 (\omega_0 - \omega + i\gamma/2)$, ...

I:24-5, par 3

... we again find two solutions: $e^{\alpha_1 t}$ and $e^{i\alpha_2 t}$, ...

Typographical error (' $e^{\alpha_1 t}$ ' vs. ' $e^{i\alpha_1 t}$ ').

... we again find two solutions: $e^{i\alpha_1 t}$ and $e^{i\alpha_2 t}$, ...

I:25-1, par 5

Now we notice that ax is also a solution to the same equation;

Typographical error (missing subscript on x_1).

Now we notice that ax_1 is also a solution to the same equation;

I:25-4, par 2

This method of solution is called the method of *Fourier transforms* or .

Typographical error (missing words '*Fourier analysis*').

This method of solution is called the method of *Fourier transforms* or *Fourier analysis*..

I:26-2, Table 26-1, last row

The refracted 'Angle in Water' corresponding to an 80° incident 'Angle in Air' should be (by Ptolemy's estimate) 50°, not 80°.

I:26-4, Fig 26-4

Typographical error (Label for point 'E' is missing).

I:27-5, Fig 27-7

Typographical error (the label for point 'X' is missing).

I:29-7, par 2

The complex conjugate is the same expression, but with the sign of then i 's reversed.

Typographical error ('then' vs 'the').

The complex conjugate is the same expression, but with the sign of the i 's reversed.

I:30-1, Fig 30-1

Typographical error (the label for point 'S' is missing).

I:34-9, par 3

Using this vector, our wave can be written as $\cos(\omega t - \mathbf{k} \cdot \mathbf{r})$ or as $\cos(\omega t - k_x x - k_y y - k_z z)$.

Typographical error (missing factor 't').

Using this vector, our wave can be written as $\cos(\omega t - \mathbf{k} \cdot \mathbf{r})$ or as $\cos(\omega t - k_x x - k_y y - k_z z)$.

I:39-6, par 2

The pressure times the volume is the total number of atoms times $1/2(\mathbf{p} \cdot \mathbf{v})$, averaged.

Typographical error ('1/2' vs. '1/3').

The pressure times the volume is the total number of atoms times $1/3(\mathbf{p} \cdot \mathbf{v})$, averaged.

I:40-5, par 1

But the number which pass through h with any velocity greater than 0 is less than the number which pass through the lower height with any velocity greater than 0, because the number of atoms is greater;

Typographical error ('0' shouldn't stand alone at the beginning of a line).

But the number which pass through h with any velocity greater than 0 is less than the number which pass through the lower height with any velocity greater than 0, because the number of atoms is greater;

I:40-8, par 6

... and we know from their spectra that there are internal motions ;

Typographical error (superfluous space before semi-colon).

... and we know from their spectra that there are internal motions;

I:42-10, par 4

Then light which has the frequency corresponding to the energy difference $E_m - E_n$ will not be strongly absorbed, ...

Typographical error (' E_n ' vs. ' E_n ').

Then light which has the frequency corresponding to the energy difference $E_m - E_n$ will not be strongly absorbed, ...

I:43-2, Eq 43.2

$$N(t + dt) = N(t) - N(t) \frac{dt}{d\tau} . \quad (43.2)$$

Typographical error (' $d\tau$ ' vs. ' τ ').

$$N(t + dt) = N(t) - N(t) \frac{dt}{\tau} . \quad (43.2)$$

I:43-4, par 5

But if we Watch it carefully we see ...

Typographical error ('Watch' should not be capitalized).

But if we watch it carefully we see ...

I:43-5, par 3

For the moment, then, our assumption is that the *S*-molecule leaves each collision...

Typographical error ('S' should be italic).

For the moment, then, our assumption is that the *S*-molecule leaves each collision...

I:46-2, par 6

The probability per second is proportional to $e^{-(E+L\theta)/kT_1}$, ...

Typographical error in exponent (' E ' vs. ' ϵ ').

The probability per second is proportional to $e^{-(\epsilon+L\theta)/kT_1}$, ...

I:48-5, par 1

In the-case of sound, this problem does not really cause much trouble.

Typographical error (superfluous '-').

In the case of sound, this problem does not really cause much trouble.

I:50-7, par 4

Let us check that Eq. (50.19) does indeed give us back $f(t)$ for some value of t . Let us choose ...

Typographical error ('t' shouldn't stand alone at the beginning of a line).

Let us check that Eq. (50.19) does indeed give us back $f(t)$ for some value of t . Let us choose ...

I:50-9, par 4

First, if the two frequencies are widely different '(for example,

Typographical error (superfluous '?').

First, if the two frequencies are widely different (for example,

I:51-2, Fig 51-3

Typographical error in label (' $t_3 > t_3$ ' vs. ' $t_3 > t_2$ ').