

Quantum Theory, Groups and Representations: Errata

Peter Woit
Department of Mathematics, Columbia University
woit@math.columbia.edu

June 18, 2018

The following are errata for the version of the book published by Springer. These may or may not have yet been fixed in versions of the book available from Springer.

Page viii:

To the list of those helpful with suggestions for improving the text, add Alain Bossavit and John Stroughair.

Page 64:

In the figure, replace “x” with “X”.

Page 288:

Last two equations should be

$$q(0) = c_+ + c_- = 2 \operatorname{Re}(c_+), \quad p(0) = im\omega(c_+ - c_-) = -2m\omega \operatorname{Im}(c_+)$$

$$c_+ = \frac{1}{2}q(0) - i\frac{1}{2m\omega}p(0)$$

Page 289:

First two equations should be

$$q(t) = \left(\frac{1}{2}q(0) - i\frac{1}{2m\omega}p(0) \right) e^{i\omega t} + \left(\frac{1}{2}q(0) + i\frac{1}{2m\omega}p(0) \right) e^{-i\omega t}$$

$$p(t) = \left(\frac{im\omega}{2}q(0) + \frac{1}{2}p(0) \right) e^{i\omega t} + \left(\frac{-im\omega}{2}q(0) - \frac{1}{2}p(0) \right) e^{-i\omega t}$$

Page 356:

Near middle of page, replace $\mathcal{H}_B \otimes \mathcal{F}_d^+$ by $\mathcal{H}_B \otimes \mathcal{F}_1^+$.

Page 600:

Instead of

$$\mathcal{H}_1 \otimes \mathbf{C} = \mathcal{M}_{j_r}^+ \oplus \mathcal{M}_{j_r}^-$$

read

$$\mathcal{M} \otimes \mathbf{C} = \mathcal{M}_{j_r}^+ \oplus \mathcal{M}_{j_r}^-$$

Page 601:

First line, replace $\alpha_\mu(\mathbf{p})$ by $\alpha = (\alpha_0(\mathbf{p}), \boldsymbol{\alpha}(\mathbf{p}))$.

Replace equation 46.22 by

$$\langle \alpha, \alpha' \rangle = \int_{\mathbf{R}^3} (-\overline{\alpha_0(\mathbf{p})} \alpha'_0(\mathbf{p}) + \overline{\boldsymbol{\alpha}(\mathbf{p})} \cdot \boldsymbol{\alpha}'(\mathbf{p})) d^3 \mathbf{p}$$

Replace occurrences of $\mathcal{H}_1^{+'}$ and $\mathcal{H}_1^{+''}$ with \mathcal{H}'_1 and \mathcal{H}''_1 respectively.