# Errata

**The responsibility for these mistakes lies with the publisher, not with the authors.**

**For a corrected version of this chapter, please visit
www.wiley-vch.de/publish/en/books/bySubjectPH00/ISBN3-527-40691-3  ("Sample chapter").**

**(NB: Equations and sub-headings are counted as one line only, even if they are longer.)**

Page 3
Right column, line 1:               replace $\nu$ with $v$
Equation 1:                         replace $\nu$ with $v$
Right column, line 8:               replace $\nu$ with $v$
Page 4
Left column, line 15:               replace $\nu$ with $v$
Page 15
Left column, line 24:               insert an opening angle bracket at the beginning
                                    of the line

Page 16
Equation 61, line 3:                replace $\psi(t)$ with $\psi_n$
Page 17
Equation 63:                        replace $e^{t\gamma_n(t)}$ after the equals sign with $e^{i\gamma_n(t)}$
Page 19
Figure 1.5, caption, line 4:        replace (1924) with (1981)
Page 20
Equation 75, line 2:                insert $x$ to the left of the last closing bracket, but not
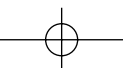                                    underneath the root

Page 22
Left column, line 32:               replace $\partial z$) with $\partial z^2$)
Equation 83, line 1:                replace $\hbar_1^2$ in the numerator of the last fraction
                                    with $\hbar^2 l$
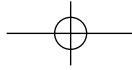
Page 23
Equation 88, line 1:                put a minus between the equals sign and the
                                    first fraction

Page 25
Equation 97:                        replace $\langle i|V_I + |j\rangle$ in front of the equals sign
                                    with $\langle i|V_I(t)|j\rangle$

Page 26

Equation 100, line 1: replace $w$ in the denominator of the right-hand fraction with $\omega$

Page 27

Right column, line 32: replace $\nu$ with $v$

Page 33

Left column, lines 1/2: replace ''it is the phase loss of a matter wave upon reflection'' with ''it is the phase loss in units of $h = 2\pi\hbar$ of a matter wave upon reflection''

Equation 125: put in an x (times) in front of exp

Page 34

Equation 127: remove the equals sign

Equation 130, line 2: put in an $L$ in front of the opening parenthesis within the square brackets

Page 35

Equation 132, line 3: put in exp in front of the opening square bracket

Page 41

Left column, line 15: replace $\nu$ with $v$

Left column, line 17: replace $\nu$ with $v$

Page 42

Equation 148 replace the whole equation by:
$$\sqrt{c^2 p^2 + M^2 c^4} \longrightarrow \left(c\,\boldsymbol{\alpha}\cdot\mathbf{p} + \beta M c^2\right)$$

Left column, lines 18–20: replace ''that the square of the operator on the right-hand side satisfies'' with ''that the square of the linearized operator satisfies''

Equation 149: c after opening parenthesis is not supposed to be bold

Equation 151: c after opening square bracket is not supposed to be bold

Right column, line 7: replace superscript $z$ with superscript 2

Right column, line 8: replace last superscript $z$ with superscript 2