Corrections—# 3, August 10, 2000
Introduction to Quantum Mechanics
by David Griffiths

- inside front cover, under "Generalized uncertainty principle": remove the superscripted "2" on the right.

- page 4, line 8: correct spelling of "pejorative".

- page 68, displayed material on line after "we obtain" should read:

$$\tan(la) = \frac{\kappa}{l} \text{ (plus sign)}, \text{ and } \tan(la) = -\frac{l}{\kappa} \text{ (minus sign)}.$$

- page 72, Prob. 2.48 (a) and (b): change "Show" to "Check".

- page 90, two lines above 3.80: insert the word "normalized" between "the" and "eigenvectors".

- page 96, line after 3.90: fix spelling of "dimensional".

- page 116, Prob. 3.48 (b): change "*next*" to "second".

- page 122, line before 4.6: change $dx\,dy\,dx$ to $dx\,dy\,dz$.

- page 126, last displayed equation: change $\left(\frac{d}{dx}\right)$ to $\left(\frac{d}{dx}\right)^2$.

- page 127, footnote 8: change Y_l^m to $(Y_l^m)^*$.

- page 152, penultimate line: correct spelling of "inadvertently".

- page 158, footnote 26: change "Neils" to "Niels".

- page 159, line after 4.153: change "r" to "v" in "Levi-Civita".

- page 178, Prob. 5.1 (c): change the first line to read "Separate the variables by letting . . . "

- page 183, top equation: put subscript "a" on the first ψ and subscript "b" on the second ψ.

- page 190, line 3: correct spelling of "accommodate".

- page 192, Table 5.1: in line 25 the final subscript should be 5/2, not 3/2.

- page 204, fourth line from bottom: change 10 to 13; next line: change to read ". . . could be 9, two could be 3 and one 15 or two 11 and one 1 (each in three . . . ".

- page 205, second line: change to read "(3,3,15), (3,15,3), (15,3,3), (11,11,1), (11,1,11), (1,11,11)" (and center); line following 5.69: change to read "...two are in ψ_3 (or ψ_{11}) and one is in ψ_{15} (or ψ_1), it is"; Eq. [5.70]: change to read "(0,0,2,0,0,0,0,0,0,0,0,0,0,0,1,0,...) or (1,0,0,0,0,0,0,0,0,0,0,0,2,0,...)" (and center); next line: change "all others zero" to read "or $N_1 = 1$, $N_{11} = 2$"; line following 5.71: change "third" to "last"; next lines, change to read "...whereas the middle two occur three ways ...".

- page 205, last paragraph: change every 10 to 13 (eight times); in line 5 change "the second" to "either middle"; next line, after "E_3" add "(or E_{11})" and after "E_{15}" add "(or E_1)"; next line: after "P_3" insert "= P_{11}", and before "P_{15}" insert "P_1 ="; same line and two lines below, change "1/5" to "2/13".

- page 206, top line: change to read:

$$P_1+P_3+P_5+P_7+P_9+P_{11}+P_{13}+P_{15} = \frac{1}{13}+\frac{2}{13}+\frac{2}{13}+\frac{2}{13}+\frac{1}{13}+\frac{2}{13}+\frac{2}{13}+\frac{1}{13} = 1.$$

(Use smaller type if necessary.)

- page 206, first paragraph: change line 3 to read "...the first, second, and third configurations ..."; change next line to read "...with the configuration 5.71 (see Problem 5.19(a)). For ..."; change last two lines to read "lem 5.19(b)), so $P_9 = 1/4$, $P_3 = P_{11} = (1/4) \times (2/3) = 1/6$, $P_{15} = P_1 = (1/4) \times (1/3) = 1/12$, and $P_5 = P_7 = P_{13} = (1/4) \times (1/3) = 1/12$. As always, the sum is 1."

- page 206, Prob. 5.19 (b): in (ii) change subscript "13" to "15".

- page 215, Eq. 5.106: change right side to read

$$k_B T \left[\ln \left(\frac{N}{V} \right) + \frac{3}{2} \ln \left(\frac{2\pi\hbar^2}{mk_B T} \right) \right].$$

- page 216, footnote 24: change problem number to "5.32".

- page 228, two lines after 6.17: there should not be a line break here.

- page 229, five lines after 6.26: switch "plus" and "minus"; in the displayed equation two lines below, switch every a to b, and every b to a (four of each).

- page 243, Prob. 6.16, line 6: the subscript "fs" should be Roman.

- page 244, footnote 11: change "83" to "238".

- page 254, Prob. 6.31: remove the two minus signs in the equation.

- page 255, Problem 6.34 (c): switch the words "**orthorhombic**" and "**tetragonal**".

- page 260, Prob. 7.3: change "trail" to "trial".

- page 276, Eq. 8.4: insert $e^{i\phi}$ after].

- page 295, Eq. 8.56: insert "dx" after the square root in the integral.

- page 301, Prob. 9.1: remove the minus sign at the end of the second line; Prob. 9.3: change answer to read $P_{a \to b} = \sin^2(|\alpha|/\hbar)$.

- page 304, footnote 1: change "10^{14} Hz" to "10^{15} s^{-1}".

- page 306, footnote 2: change "X-rays" to "x rays".

- page 310, second line of last paragraph: change x to y; add "is": "...and is polarized ..."

- page 322, Prob. 9.20 (b): change "w" to "ω" in the last line.

- page 323, lines 2 and 3: change "I" to "you" (twice).

- page 330, line 5: change "it" to "is"; Eq. 10.24: insert right bracket].

- page 353, Fig. 11.2: change "a" to "α" (three times).

- page 359, Table 11.1: change every z to x (18 times).

- page 363, second equation from the bottom: change δ^2 to δ^3.

- page 365, Fig. 11.7: remove arrows over r and s and make both of them bold face (and S should be lower case); Fig. 11.8: change axis labels so vertical one reads "Im(s)" and horizontal one reads "Re(s)", and make both S's (and the k's) under the horizontal line lower case, light face.

- page 368, line following 11.69: take the prime *off* the second **k** and put it *on* the first one; Fig. 11.10: remove arrows over all bold letters (5 times); in the caption take the prime *off* the second **k** and put it *on* the first one.

- page 371, Fig. 11.11: change F_1 to $F_\perp$ (same as in Eq. 11.85).

- page 388, under "Ehrenfest's theorem": add page 71.

- page 389, under "Hermitian", include (between "matrix" and "transformation") the entry "operator, 97"; under "Hydrogen atom": change "113" to "133".