ERRATA for 13th Printing
May 26, 2006

Page viii:Third line from below must read as follows: " of friendly and warm cooperation. I thank Ron Johnson, Editor at of Springer for his tireless efforts on behalf of this book, and Chris Bostock, Daniel Keren and Jimmy Snyder for their generous help in correcting errors in the 13th printing. Finally, I thank my wife Uma..."

. Page xii: Para 2, line 1, should read ".. costs were .."

Page 18: Second line of Exercise 1.4.1* $\quad 0\rangle \to |0\rangle$

Page 43: Equation in part (2) should read "$M^i M^j = -M^j M^i$ for $i \neq j$"

Page 52 3rd line from bottom: $|II\rangle(t)\rangle \to |II(t)\rangle$

Page 52, Middle of page, after the word "Consequently" : $|I(t) \to |I(t)\rangle$

Page 54: The sum runs from 0 to ∞.

page 66: In un-numbered equation above (1.10.30) lower limit of integral is L and not 0.

Page 68: (1.10.35) the first integral should be " $\int_{-\infty}^{\infty} \langle x|k\rangle \langle k|f\rangle dk$"

Page 81: 4 lines below (2.1.14): should read "$...\rho = (x^2 + y^2)^{1/2}...$ "

Page 119: Unnumbered equation in (5) should read " $P(\lambda) \propto |\langle \lambda|\psi\rangle|^2$ "

Page 167: 2 lines below (5.4.1) should read "..dotted lines in Figure 5.2."

Page 175: Exercise 5.4.2: Line 1, "of a potential" $\to$ "off a potential "

Page 191: 7 lines below (7.3.8) should read "... ranging from atomic physics..."

Page 252: 3 lines above (10.1. 9a) should read "$...X_1^{(1)} \bigotimes^{(2)}$ ..."

Page 255: 2 lines below (10. 1. 28c) should read ".. energy eigenvectors..."

Page 296: Footnote should read "which does change with time "

Page 317: Part 10 line 2 should read : "..$n = 1$ solutions.."

Exercise (12.3. 8) should read ".. particle of mass μ and charge q.."

Page 320: Eq 12.4.12: Last exponential must have an i in it..

Page 336: 5 lines from bottom should read ".. combinations of .."

Page 337: 1 line below (12.5.41) should read "...*Legendre Polynomial.*"

Page 339: Exercise (12.5.14), last line, change (2) to (3) in Hint.

Page 339: In Exercise (12.5.14) reverse *any* sign in front of $\sin \theta_x$ in both equations for ψ_R.

Page 350: Top equation should contain $pr\cos\theta/\hbar$

Page 394: Line 2 from bottom replace n by N in equation.

Page 399: Exercise (14.5.2) part (1) second line should read "..1000**k**G is applied.

Page 408: 3 lines above part (3): should read " wavelength of emitted.."

Page 414: Second footnote should read ".. one for $j = l + \frac{1}{2}$ and ..."

Page 414: Line 6 should end with "momentum"

Page 415: Exercise (15.2 6) should read "... the projection operators .."

Page 415: Exercise (15.2 7) should read " states with $j = 2j_1 - 1$ are.."

Page 418: 2 lines below (15.3.13) should read".. orthogonal to $T_k^q|\alpha j m\rangle$ unless.."

Page 419: Footnote should read"..$\mp(J_x \pm iJ_y)/\sqrt{2} = $ .."

Page 420: In (15.3. 17) the conjugated Y functions should appear as follows: $Y_{l_2}^{m_2*}$

Page 430: Last para first line ".. but its utility.."

Page 429: Last line should read :" This minimum.."

Page 432: 4 lines above (16.1.15) should read "variational method. For a trial..

Page 432: Line below (16.1. 15) should read "...minimum lies not at $Z = 2$..."

page 434: Line above first un-numbered equation middle of page . "will obey.."

Page 439: In the un-numbered equation for U, let $X' \to x'$

Page 446: 2 lines below (16.2. 28) should read ".. neither Eq. (16.2 27) nor Eq. (16.2. 28) is ..."
Page 461: (17.2.32) second line replace $\leq$ by $=$.
Page 463: Six lines above (17.2.44): "An easier way is to extract.."
Page 464: (17.2 46) should read $W = -\frac{1}{2}\alpha\mathcal{E}^2$.
Page 471: Second line $\left\langle \frac{\lambda}{r^2} \right\rangle$.
Page 485: Line above (18.3. 8b) should read ".. equation, we get"
Page 488: Line 3: "to first order, we keep only the first power of.."
Page 496: Last line should read ".. least action) are .."
Page 502: Line above (18.5.12) should read".. may approximate.."
Page 507: First line penultimate para "..coordinates.."
Page 526: Line above (19.2.5) should end with "..Eq. (19.2.2)
Page 519: Last factor in (18.5.86) should be $(\varepsilon_1^1\delta_{m,+1} + \varepsilon_1^0\delta_{m,0} + \varepsilon_1^{-1}\delta_{m,-1})$
Page 530: Eq. 193.2: $|p_i\rangle \rightarrow |\mathbf{p}_i\rangle$
Page 533: Line 3 should read ".. $r_0 = 1/\mu_0$..."
Page 539: Top line should contain only the following and nothing else: $\simeq r\left(1 - 2\frac{\mathbf{r}\cdot\mathbf{r}'}{r^2}\right)^{1/2}$
Page 564: In (20.1.8b) it should read ".. $+ \left(\frac{mc}{\hbar}\right)^2$"
Page 572: Top line should read ".. terms make corrections.."
Page 573: Third line put a comma after first $\mathbf{P}$
Page 587: 5 lines above (21.1.29), sentence should begin as follows: "Let us discuss a problem..."
Page 609: RHS of (21.1.126) should be $e^{z_2^* z_1}$, RHS of (21.1.127) should end with $= e^{-z^* z}$.
Page 610: Second line below Eqn.(21.1.132): ".. $\langle z'|z\rangle = e^{z'^* z}$
Page 614: In (21.2.3) replace $\psi(t)$ by $\psi(\tau)$ in LHS.
Page 616: Line below 921.2.17) should end as follows "case $a = A = 1$"
Page 667: Answer to 14.3.5 should read ..... $+ i\left(\frac{\beta-\gamma}{2}\right)\sigma_y + ..$
Page 673: Insert index item "Legendre polynomial 337" above Lamb shift.
Page 676 Last entry, Zeeman should have just one n.