ERRATA in 1st printing of UNIT Q (3rd edition)

- Page ii, section on complex numbers: replace $|c^2|$ by $|c|^2$.
- Page 15, problem Q1T.6, 2nd line: change "are constants" to "are positive constants".
- Page 16, problem Q1M.3: starting at the fifth line: replace "transverse waves that move about 60% slower." by "transverse waves that move at about 60% of the P-wave's speed."
- Page 49, problem Q3M.1, third line: change "are separated by" to "have a center-to-center separation of".
- Page 50, problem Q3M.9, last line: the Hubble's main mirror is 2.4 m in diameter, not 1 m.
- Page 65, problem Q4M.2, first line: change "meta" to "metal".
- Page 66, problem Q4D.1, equation Q4.17, *y* component of last 4-momentum: change $|\vec{p}_e|\sin\phi$ to $-|\vec{p}_e|\sin\phi$.
- Page 76, figure Q5.4: the credit should be "Credit: Reproduced with permission from "Two and three slit electro interference and diffraction experiments" by S. Frabboni, C. Frigeri, G. C. Gazzadi, and Giullo Pozzi, *Am. J. Phys.* **79**, 615 (2011). Copyright 2011, American Association of Physics Teachers."
- Page 84, problem Q5M.12: Delete the first sentence and replace with "The 1990 Nobel Prize for physics was awarded to H. W. Kendall, J. I. Freidman, and R. E. Taylor for experimental work involving scattering of 20-GeV electrons from light atomic nuclei, which provided crucial initial evidence for the existence of quarks."
- Page 85, problem Q5R.1, last sentence: change "Where could you stand" to "If you are 30 m from the doors, where could you stand".
- Page 98, problem Q6T.6, fifth line: change "viewer's right" to "viewer's left" (to be consistent with the following description of the direction of the torque).
- Page 112, equation Q7.14*a*: change the final term from $\sqrt{\frac{1}{2}}|+z\rangle$ to $\sqrt{\frac{1}{2}}|-z\rangle$.
- Page 149, problem Q9A.1, part (b), second line: change $\sin^{-1}(d/\lambda)$ to $\sin^{-1}(n\lambda/d)$.
- Page 157, equation Q10.10: change last item from $\frac{ke^2}{r^2}$ to $\frac{1}{4\pi\varepsilon_0}\frac{e^2}{r^2}$.
- Page 163, problem Q10B.2, second going to third line: change "electron's electron" to "electron's energy".
- Page 164, problem Q10M.9, part (b), third line: change "eigenfunctions" to "eigenfunction's".
- Page 164, equation Q10.26: change each Et to $Et/\hbar$ (two times).
- Page 188, section Q12.5, first line: the URL was correct at the time of printing but is no longer. Eventually, one should go to http://www.physics.pomona.edu/sixideas/resources.html for links to all software, but for the moment, one should go to http://www.physics.pomona.edu/sixideas/old/sicpr.html, scroll down to the section on Unit Q, and download the appropriate version of SchroSolver for your computer.
- Page 197, problem Q12B.1, third line: after "0.75 nm wide" add "and 10 eV deep".
- Page 201, equation Q13.20: Change $\tau \equiv \ln 2/t_{1/2}$ to $\tau \equiv t_{1/2}/\ln 2$ (consistent with Q13.20 on page 212).
- Page 202, second line below equation Q13.1: replace $^{56}_{20}\text{Fe}$ by $^{56}_{26}\text{Fe}$.
- Page 223, second line below equation Q14.7*b*: change "impossible" to "possible only".
- Page 226, last line of last full paragraph: change "β^- decay (to increase N/Z)." to "β^- decay (to decrease N/Z)."
- Page 227, Figure 14.6, 4n+1 series: in 2003, it was discovered that ^{209}Bi is actually unstable against α-decay (with an extremely long half-life). So this series actually terminates with ^{205}Tl (thallium-205).
- Page 230, problem Q14M.4, end of the *Hint*: add "Also note that conservation of energy will involve the masses of the *nuclei* involved, but we are given atomic masses. How can one handle this?"
- Page 233, line below equation Q15.8: "initial and final" should be "final and initial".
- Page 243, 2nd paragraph, 5th line: change $^{239}_{92}\text{U}$ to $^{238}_{92}\text{U}$.
- Page 247, equation Q15.14*b:* $^{3}_{1}\text{He}$ should be $^{3}_{2}\text{He}$.
- Page 247, equation Q15.14*c:* the reaction should be $^{3}_{2}\text{He} + ^{3}_{2}\text{He} \rightarrow ^{4}_{2}\text{He} + ^{1}_{1}\text{H} + ^{1}_{1}\text{H}$ (the subscripts on all the helium symbols and the superscript on the first hydrogen symbol
- Page 254, equation QA.4a: should read $c^* \equiv a - ib$ (change *c* on right to *a*).
- Page 267, problem QAD.6, part (b), third line: change "wave's energy" to "wave's wavelength".
- Page 288, answer to problem Q3M.9b: should be 14 km if one uses the actual Hubble mirror diameter of 2.4 m.