Errata

p. 9: Third paragraph. “The right-hand side of the this equation” should read “The right-hand side of this equation”.

p. 70: Exercise 4.7 should read:
“A particle moves under the influence of a central force per unit mass of the form
\[ f(r) = -\frac{k}{r^2} + \frac{c}{r}, \]
where \( k \) and \( c \) are positive constants. Show that the associated orbit can be written
\[ r = \frac{a(1-e^2)}{1+e \cos(\alpha \theta)}, \]
which is a closed ellipse for \( e < 1 \) and \( \alpha = 1 \). Discuss the character of the orbit for \( \alpha \neq 1 \) and \( e < 1 \). Demonstrate that
\[ \alpha = \left(1 - \frac{\gamma}{1-e^2}\right)^{-1/2}, \]
where \( \gamma = c/(ka) \).

p. 74: Equation (5.10), and following line. “24 h 56m 04s” should read “23 h 56m 04s”. This error occurs twice.

p. 91: Equation (5.94). “4 \times 10^9.” should read “4 \times 10^9 years.”

p. 96: Exercise 5.13. Final equation. Delete equation number “(5.111)”.

p. 122: Second paragraph. “given previously, we can write the potential energy” should read “given previously, the potential energy”.

p. 142: Between Equations (7.207) and (7.208). “unit vector parallel to \( \mu A \)” should read “unit vector parallel to \( MA \)”.

p. 144: Between Equations (7.233) and (7.234). “and \( g = 4.0185 \times 10^{-3} \)” should read “and \( g/n = 4.0185 \times 10^{-3} \)”.

p. 156: Second paragraph. “(See Figure 8.5.)” should read “(See Figure 8.6.)”

p. 158: Between Equations (8.61) and (8.62). “excluded, grow in area as \( C \)” should read “excluded grow in area as \( C \)”.

p. 174: Fourth line. Replace \( \lambda^{(1)}(t) \) by \( \tilde{\lambda}^{(1)}(t) \).

p. 232: First paragraph. “(Gradshteyn and Ryzhik 1980e)” should read “(Gradshteyn and Ryzhik 1980c)”.

p. 197: First paragraph. Replace ”Claudius Ptolemy (90 BCE–168 CE)” by ”Claudius Ptolemy (90 CE–168 CE)”.

p. 205: At the end of the second paragraph. Add “We have also assumed that \( x_1 = -e, y_1 = 2e, z_1 = l \), in accordance with Equations (10.42)–(10.44).”

p. 229: First paragraph. "(Gradshteyn and Ryzhik 1980b)" should read "(Gradshteyn and Ryzhik 1980a)".

p. 229: First paragraph. "(Gradshteyn and Ryzhik 1980c)" should read "(Gradshteyn and Ryzhik 1980b)".

p. 232: Second paragraph. "(Gradshteyn and Ryzhik 1980e)" should read "(Gradshteyn and Ryzhik 1980c)".

p. 235: Section B.2, first paragraph. "Equation (B.12) and (B.13)" should read "Equations (B.12) and (B.13)".

p. 259: The eight entry should read:


p. 260: The second to sixth entries should be replaced by:

