Errata for 2015 printing of Fundamental Planetary Science

p. 10: replace the last two sentences of Sec. 1.2 by: *Voyager 2* is now in the **heliosheath**, between the termination shock and the heliopause. *Voyager 1* crossed the heliopause in 2012.

p. 57, bold text above eq. 2.63b [already noted below], and also on p. 577: Reynold's number→ Reynolds number

p. 355, below eq. 13.13: When $Q_T < 1$, the disk is → If $Q_T < 1$, the disk would be

p. 355, below eq. 13.14: Clumping may be able to produce agglomerations □$(2\pi)^{-1}$ times as wide as this length scale. → However, numerical simulations show that clumping occurs for $Q_T \sim< 2$, and that these clumps stir particle velocities and thereby keep Q_T above unity.

p. 402, Figure 14.25: '0.2' on y-axis should read '5'

p. 523, Table E.12: 345 → 400 also, this is an updated value from the references listed in the table note.

p. 529, Apollo 10: rendezvous → undocking, docking

Errata for 1st Printing of Fundamental Planetary Science (corrected in 2014)

p. 10, lhs, line 14: 18 km → 26 km

p. 10, lhs, line 24: 15-20 km s^{-1} → 22 (for H) – 26 (for He) km s^{-1}.

~~p. 10, last sentence Section 1.2 should read: Voyager 1 entered interstellar space on 25 August 2012, when it was at a heliocentric distance of 121 AU.~~ [Superseded – see above]

p. 22, Hint for Problem 1-3:
Calculate the angular area of the body being observed, multiply by the body's albedo and divide by the square of the distance to the Sun to account for flux of light reflected off of the observed body. The sizes, distances and albedos of Solar System objects are provided in Appendix E.

p. 38, lhs, 8th line: these → the hot jupiter

p. 39, lhs, 7th line below eq. (2.32): 10^{-10} → 10^{-8}

p. 57, 4 lines above Eq. 2.63b: Reynold's number → Reynolds number

p. 69, eq. 3.14: delete 'V'

below eq. 3.14: delete 'V represents volume,'

p. 88: 'and *T* is in degrees Kelvin' should be added at the end of the sentences that include equation (4.6) and (4.8)

p. 103, lhs, 2nd line of main text: depth → depth to outgoing radiation
rhs, top 2 lines: continuum radiation is received → an external observer detects continuum radiation that emerged
5th line: depth → depth (again, of outgoing, typically IR, radiation)

p. 108, problem 4.13: J/m/s/K → J * m^{-1}*s^{-1}*K^{-1}

p. 119, lhs: 2nd paragraph, line 7: chilling to –10 °C → chilling to below 0 °C
3 lines further down: The vapor pressure above the ice is 2.6 mbar at –10 °C. → As an example, the vapor pressure at –10 °C (point C) is 2.6 mbar.

p. 119, lhs, 14 lines from bottom:
delete "(ignoring the change in partial pressure A → D with altitude)"

p. 130, replace the 1st complete paragraph on the page by:
The measured ratio Argon isotopes, $^{40}Ar/^{36}Ar$, in Earth's atmosphere and volcanic glasses can be used to deduce when gases were released into the atmosphere. ^{36}Ar is a primordial isotope, incorporated into planetesimals only at extremely low temperatures ($\sim< 30$ K). ^{40}Ar, in contrast, originates from radioactive decay of potassium, ^{40}K, which has a half-life of 1.25 Gyr (Table 11.1). Both the stable and radioactive isotopes of potassium are incorporated in rock-forming minerals. Upon decay of ^{40}K, the resulting argon gets released only when the mineral melts. The $^{40}Ar/^{36}Ar$ ratio seen in bubbles within volcanic glasses is about one hundred times as large as the atmospheric value of 300. This implies that the vast majority of the ^{36}Ar now in the atmosphere either never resided in the mantle or was outgassed from the mantle within the first few tens of million years of Earth's accretion.

p. 181: delete entire sentence containing eq. (6.8), including the equation

p. 182, 2nd line on lhs: value given by equation (6.8) → typical value for an object with this amount of kinetic energy
end of 1st full paragraph: 100 people were injured. → 1000 people were injured seriously enough to seek medical attention.

p. 213, replace the first two sentences of the full paragraph with:
Forensic evidence implies Jupiter was hit by an object of radius ~100–200 meters in July 2009.

p 229, lhs: stucture → structure

p. 234, rhs: permamently → permanently