

Erratum – An Introduction to Stellar Astrophysics
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Corrections for ALL printings:

- On page 47, in Eq. (2.58), one should read ‘...5×10³⁴ g...’ instead of ‘...5×10⁻³⁴ g...’.
- On page 90, one should read ‘...the left side of Eq. (3.51) is nil,...’ instead of ‘...the left side of Eq. (3.51) in nil,...’.
- On page 141, one should read ‘It was seen in Section 4.3...’ instead of ‘It was seen in Section 4.2...’.

Corrections for the first two printings (from 2010):

- On page 31, Exercise 1.3 should read ‘is much smaller than’ instead of ‘is much smaller that’.
- On page 32, Exercise 1.6 should read ‘a flux equal to that of a blackbody’ instead of ‘a flux equal that of a blackbody’.
- On page 32, the question mark at the end of Exercise 1.6 should be replaced by a period.
- On page 57, Exercise 2.1 should read ‘where r is the distance’ instead of ‘where and r is the distance’.

- On page 98, Eq. (3.90) should read

$$H_\nu(\tau_\nu) = -\frac{1}{2} \int_0^{\tau_\nu} S_\nu(t) E_2(\tau_\nu - t) dt + \frac{1}{2} \int_{\tau_\nu}^{\infty} S_\nu(t) E_2(t - \tau_\nu) dt$$

instead of

$$H_\nu(\tau_\nu) = \frac{1}{2} \int_0^{\tau_\nu} S_\nu(t) E_2(\tau_\nu - t) dt - \frac{1}{2} \int_{\tau_\nu}^{\infty} S_\nu(t) E_2(t - \tau_\nu) dt = \frac{1}{2} \int_0^{\infty} S_\nu(t) E_2(|t - \tau_\nu|) dt$$

- On page 98, Eq. (3.92) should read

$$\Phi_\nu(f(t)) = -\frac{1}{2} \int_0^{\tau_\nu} f(t) E_2(\tau_\nu - t) dt + \frac{1}{2} \int_{\tau_\nu}^{\infty} f(t) E_2(t - \tau_\nu) dt$$

instead of

$$\Phi_\nu(f(t)) = \frac{1}{2} \int_0^{\infty} f(t) E_2(|t - \tau_\nu|) dt$$

•On page 105, Exercise 3.2 should read $S_\nu(\tau_\nu) = a_\nu + b_\nu \tau_\nu^2$ instead of $S_\nu(\tau_\nu) = a_\nu + b_\nu \tau_\nu$.

•On page 107, Eq. (3.137) should read

$$H_\nu(\tau_\nu) = -\frac{1}{2} \int_0^{\tau_\nu} S_\nu(t) E_2(\tau_\nu - t) dt + \frac{1}{2} \int_{\tau_\nu}^{\infty} S_\nu(t) E_2(t - \tau_\nu) dt$$

instead of

$$H_\nu(\tau_\nu) = \frac{1}{2} \int_0^{\tau_\nu} S_\nu(t) E_2(\tau_\nu - t) dt - \frac{1}{2} \int_{\tau_\nu}^{\infty} S_\nu(t) E_2(t - \tau_\nu) dt$$

•On page 152, Exercise 4.2 should read ‘...the integrated Eddington flux is...’ instead of ‘...the integrated flux is...’.

•On page 153, Exercise 4.13 should read ‘...by using the results for the grey atmosphere, estimate the number...’ instead of ‘...by using the results for the grey atmosphere estimate the number...’.

•On page 198, one should read ‘For instance, in the Sun acoustical waves are trapped...’ instead of ‘For instance, in the Sun acoustical waves travel are trapped...’

•On page 216, in the caption of Figure 6.4, one should read ‘...felt by protons and neutrons inside...’ instead of ‘...felt by protons and neutron inside...’.

•On page 242, an arrow in Figure 6.13 points in the wrong direction (details given below).

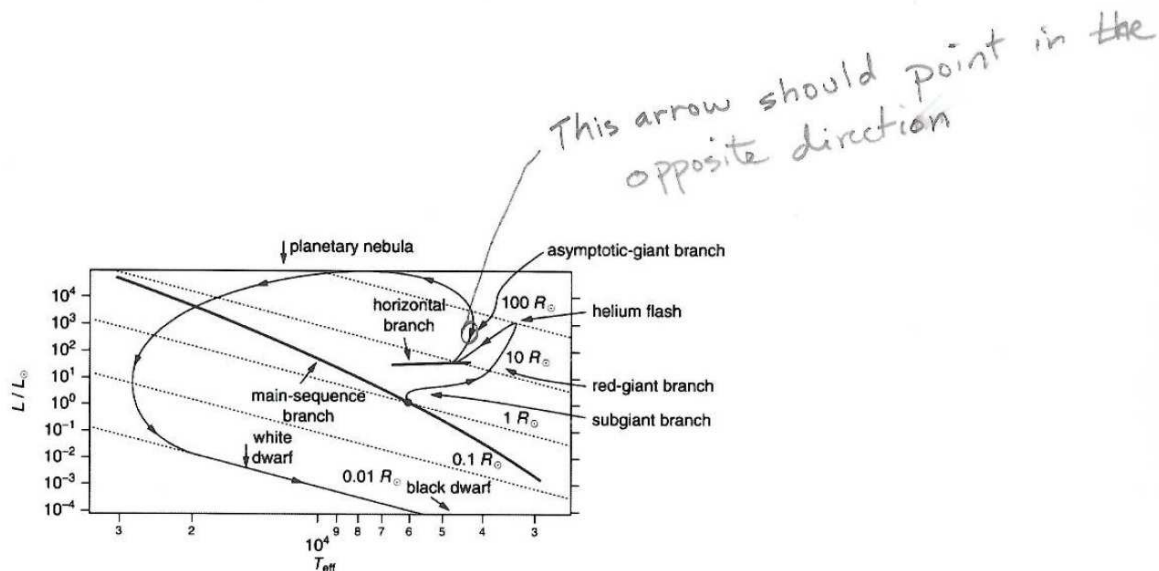


Figure 6.13 Illustration of the approximate evolutionary track of a $1 M_\odot$ star in the H-R diagram. The dotted lines show the position for various values for the radius.

•On page 256, one should read ‘...or 206265 AU...’ instead of ‘...or 206264 AU...’.

•On page 280, Eq. (6.111) should read

$$\frac{dn_d}{dt} = r_{pp} - r_{pd} = \frac{n_p^2}{2} \lambda_{pp} - n_p n_d \lambda_{pd}$$

instead of

$$\frac{dn_d}{dt} = r_{pp} - r_{pd} = \frac{n_p}{2} \lambda_{pp} - n_p n_d \lambda_{pd}$$

•On page 281, Eq. (6.115) should read

$$\varepsilon_{PPI} \rho = r_{pp} \times 1.179 \text{ MeV} + r_{pd} \times 5.493 \text{ MeV} + r_{33} \times 12.860 \text{ MeV}$$

instead of

$$\varepsilon_{PPI} = r_{pp} \times 1.179 \text{ MeV} + r_{pd} \times 5.493 \text{ MeV} + r_{33} \times 12.860 \text{ MeV}$$

•On page 282, Exercise 6.3 should read ‘...and PPIII chains...’ instead of ‘...and PPIII chain...’.

•On page 282, Exercise 6.9 should read ‘...the orbital period of the planet (assume a configuration similar to the one shown in Figure 6.25).’ instead of ‘...the orbital period of the planet.’.

•On page 283, Exercise 6.13 should read ‘...for black holes...’ instead of ‘...for the black holes...’.

•On page 283, Exercise 6.16 should read ‘...the ratio of ^3He to ^4He nuclei in terms of the reaction rate per pair of particles (or λ) of these two reactions and those from Eq. (6.111) found in Eq. (6.113) at equilibrium. Assume that the helium abundance is equal to its solar value and that ^3He is present in trace amounts.’ instead of ‘...the ratio of the ^3He and ^4He abundances in terms of the reaction rate per pair of particles (or λ) of these two reactions.’.

•In Appendix A, the value for c should read ‘ $2.99792458 \times 10^{10}$ cm/s’ instead of ‘ $2.99793458 \times 10^{10}$ cm/s’.

•In Appendix A, the units of σ should read ‘erg/cm²/K⁴/s’ instead of ‘erg/cm²/K/s’.