

An Introduction to Distance Measurement in Astronomy  
Richard de Grijs

Errata:

*General:*

- (i) When uncertainties are quoted without further specification, these refer to  $1\sigma$  uncertainties.
- (ii) **Statistical (random) errors** are (mostly) measurement errors. They can usually be reduced by obtaining more or more accurate measurements.
- (iii) **Systematic errors** cannot be reduced by taking more or more accurate measurements. These are uncertainties associated with, e.g., the model adopted or incorrect calibrations.

Ch. 1, p. 1: While *active radar measurements* can indeed lead to accurate distance measurements in the solar system, more accurate methods of distance determination include lunar laser ranging and radio measurements using spacecraft.

Ch. 3, p. 66: Line above the triple- $\alpha$  process reactions:  
 $^{12}\text{Ca}$  *should read*  $^{12}\text{C}$

Ch. 3, p. 86, Fig. 3.11: *Figure credits missing; should read:*  
(Courtesy of Wikimedia Commons, licensed under the Creative Commons Attribution–Share Alike 3.0 Unported license.)  
*Full reference:*  
<http://en.wikipedia.org/wiki/File:HR-diag-instability-strip.svg>  
(10 January 2011)

Ch. 3, p. 97: Section 3.5.6, line 4:  
(see below) *should read* (see above)

Ch. 4, p. 139: Eq. (4.3) *should read*

$$\frac{\sigma_{F_*}^2}{F_*} = f_* = \frac{L_*}{4\pi d^2}$$

Ch. 6, p. 257, Fig. 6.4: *Vertical axis labels should read*  $H_0$  (km s<sup>-1</sup> Mpc<sup>-1</sup>)

Glossary, p. 296: Eddington luminosity – *incomplete definition; should read:*  
Luminosity of a star or black hole for which the inward gravitational force balances the outward continuum radiation pressure, assuming **hydrostatic equilibrium** and spherical symmetry; also known as the ‘Eddington limit’.

Please send any further errata to [grijs@astro-expat.info](mailto:grijs@astro-expat.info)