

ERRORS IN GALACTIC ASTRONOMY (December 14, 2004)

We are very grateful to colleagues for reporting errors to us – we are especially indebted to Roland van der Marel and Bodil Helt for extensive corrigenda. Some corrected pages are downloadable by anon ftp to jjb.physics.ox.ac.uk followed by

cd bm

get reprint0.ps.gz

....

get reprint6.ps.gz

I: ERRORS CORRECTED AT FIRST REPRINTING

p.43 : eq. (2.17): numerator and denominator on the r.h.s. should be reversed.

p.78, l.4 : *to* distinguish

p.88, l.3 : pulsars *pulse*

p.100, l.-5 (i.e., line 5 from the bottom): $z \rightarrow$ metallicity Z

p.107, Table 3.10, heading: delete “giants: luminosity and colors”

p.135, Fig. 3.17: labels don't reflect that both axes are logarithmic

p.158 & 159, l.-2: within *of* cluster galaxies

p.166, l.14: luminosity function*s*

p.175, l.7: period missing

p.183, l.6: in $I(\mathbf{R})$, the \mathbf{R} should be boldface, not underscored.

p.199, l.19: .05 \rightarrow .005

p.200 & 201, l.-5: *by* examination

p.200, Fig 4.38: interchange left and right panels

p.216, l.5: 3893 \rightarrow 3898

p.237, Fig. 4.63: in left pane all plot symbols should be same type

p.240, 241, l.1: *to of*

p.247 l.-5: the random the motions

p.264, Fig. 5.1: position of RC added (all others lines from Table 5.1 are also indicated).

p.273, Fig. 5.7: label along x -axis fails to indicate that the scale is logarithmic.

p.280, l.-4: A *stars*

p.292, l.-3: *there* is no

p.345, l.1: for a for a

p.401, l.13: $\Delta R \rightarrow \Delta r$

p.416, p.-17: the number of stars \rightarrow the number of globular clusters

p.456, l.10: the width *of* the Ly ...

p.466, eq (1) in box: the penultimate line should end $L = 0 \not\rightarrow L = 0$

p.475, Table 8.1, Notes: in the last line, $10^6 \rightarrow 10^{-6}$

p.486, l.-9: heat a photon \rightarrow heat a grain

p.514, l.-5: dust in early-type galaxies dust

p.517, Fig.8.43, caption, last line: falls \rightarrow rises

p.529, l.-8: much this of tail

p.538, Fig 9.3: there should be no emission at $l > 90$ and $v > 0$ or at $l < -90$ and $v < 0$

p.573, l.-16: add “was sensitive” after COBE

p.607, l.12: have allow*ed* us

p.608, l.14: the kinds *of* data

p.608, l.17: to examine of the bulge

p.609, l.2: delete “Galactic center: extinction to”

p.622, l.-9: at its red end \rightarrow at its blue end

p.623, l.-12: Seventer \rightarrow Sevenster

p.644, l.4: expected *to* decrease

p.663, l.-2: the amount *of*

p.670, Fig.10.32: wrong figure shown

p.678, l.3&4: delete this para

p.711, l.-12: kurtotic \rightarrow kurtosis

p.719, Fig 11.13, Caption: CFHT resolution should be 0.5”.

II: ERRORS in SECOND PRINTING

p.10, l-6 : Hoskins \rightarrow Hoskin

p.15, l+1 : late 1923 \rightarrow late 1922

p.18, l-5 : galactic bar \rightarrow Galactic bar

p.31, below eq (2.1): longitude of NCP is $l_{CP} = 122.932$ not 123.932 as given

p.48, below (2.28) replace 0.921 with 1.086

p.61, l+18 : that the this galaxy \rightarrow that this galaxy

p.65, Eq (2.54): replace θ_E by θ_E^2

p.80 Eq (3.11): replace $(v_{r1} + v_{r2})^2$ by $(v_{r1} + v_{r2})^3$

p.87, l-8 : periods of the of the best \rightarrow periods of the best

p.111, l+17 : the number dN/dm of \rightarrow the number dN of

p.115, l+13 : 0.15 \rightarrow -0.35

p.147, note : the "Shapley-Ames \rightarrow the "Revised Shapley-Ames

p.164, Eq (4.4) and on line below: replace Φ_0 by Φ^*

p.177, Eq (4.7): $P(d) \rightarrow P(\mathbf{d})$

p.177, Eq (4.8): Integrand missing factor

$$\frac{1}{\sigma^2} \exp\left(-\frac{R^2 + R'^2}{2\sigma^2}\right)$$

p.178, l+1 : length a their \rightarrow length a of their

p. 181 Table 4.5 last line: the term involving a square root is too big by a factor 2, so the formular should read

$$\frac{\pi}{4s} - \frac{1}{s^2 - 1} \left(\frac{1}{2} - \frac{(1 - s^2/2)c(s)}{|s^2 - 1|^{1/2}} \right)$$

p.185, last line: replace $x - yR^{1/4}$ by $x + yR^{1/4}$

p.237, l+4: add '+4' before 'being'

p.255, Eq in Problem 4.1 missing factor $1/\pi\sigma^2$ before integral and limits of θ' integral should be 0, π .

p.256 In last line of Problem 4.5, replace $I \sim R^{-(1+\alpha)}$. by $I \sim R^{-(\alpha-1)}$.

p.277, l-5 'lower' to 'higher'

p.287, Last line of (5.16): replace by $\mathcal{M}^{-1.83}$ for $0.2 M_\odot < \mathcal{M} < 1 M_\odot$

p.297, Fig 5.15 : The β -decay arrows should point diagonally

p.308, l 15,16: change x to 0.2 and 0.51 to 0.52

p. 311 eq (5.48) change 0.6 to 6

p. 312 l 5: change 0.6 to 6

p. 316 eq (5.66): dM_{GB} to $d \ln M_{\text{GB}}$

p. 322 l-2: (5.72) to (5.71)

p. 324 l 18: 'lower-frequency' to 'higher-frequency'

p. 325 Prob 5.8 SF rate $\propto e^{-\alpha t}$ and delete t in numerator of (5.73) so it reads

$$\Phi_0(M) = \frac{\alpha e^{t\alpha}}{e^{\tau_{\text{MS}}\alpha} - 1} \Phi(M).$$

p. 338 l-12 to end para: replace with "Since RR Lyrae period decreases monotonically with the star's metallicity, this gap also shows up as a minimum in the period

distribution; clusters on the metal-rich side of the gap form a group whose RR Lyrae stars have short periods, while those on the metal-poor side of the gap contain only long-period RR Lyrae stars.”

p 354 l 1: change “second” to “third”

p 371 l 12: change r to R

p 371 l -4: change “spectra” to “measurements”

p 372 l -13: replace “an isotropic system” with “a system with an isotropic velocity distribution”

p. 537: caption Fig 9.2: change r to R

pp. 538, 539 captions of Figs 9.3 & 9.4: change 20° to 15° and also in text

p. 436 Problem 8.3: add that beam covers 6×10^{-7} steradians.

pp 539,540: in many places change r to R

p. 542 caption of Fig 9.7: reverse ‘clockwise’ & ‘anticlockwise’ in the last sentence.

p. 548 l 2 and caption Fig 9.12: change 20° to 15° ; also change (8.16) to (8.18)

p. 557 l19: add ‘used’ after ‘been’

p. 611 eq (10.3) second line: change πs_b to $\pi q_b s_b$

p. 612 eq (10.4) change first $2z_0$ to $4z_0$

p. 627 l 9 and 11: change V_\odot to W_\odot

p. 631 l-2 of Box 10.2: change $(q \sin \psi, \cos \psi)$ to $(\cos \psi, q \sin \psi)$

p. 639 eq (10.22): remove $\frac{R_0}{R}$; in last line of eq (10.27) add $(R - R_0)$ before $\frac{d\Omega_z}{dR}$

p. 640 eq (10.29): remove subscript z from Ω

p. 642 l 10: §2.1.5 to §2.1.6

p. 659 l -7: ‘density is K/D ’ to ‘density is $K/(2D)$ ’; eq (10.53) add minus sign after second equality

p. 668 eq (10.63) and in line above: add hats to $\mathbf{x}^{(i)}$

p. 669 eq (10.64): replace top of fraction by $\sum_i (v_{\text{los}}^{(i)} + \mathbf{v}_\odot \cdot \hat{\mathbf{x}}^{(i)}) \mathbf{e}_\phi^{(i)} \cdot \hat{\mathbf{x}}^{(i)}$

p. 673 l-17: change $[\text{Fe}/\text{H}] \lesssim -0.8$ to $[\text{Fe}/\text{H}] \gtrsim -0.8$

p. 674 l 12: change $\mu_0 d$ to $\mu_0 s$

p. 675 last line: change $\frac{1}{3}u^3/\mu_0^3$ to $\pi u^3/(16\mu_0^3)$ and change rhs of eq (10.68) to

$$\frac{\pi^2 n_0}{4\mu_0^3} u^3 f(u)$$

p. 678 caption Fig 10.37: replace $y_{\text{eff}} = 0.025$ by $p/(1+c) = 0.025 Z_\odot$

p.680, 3 lines above (10.73): after ‘by’ replace rest of paragraph with ‘equations (10.73) below with $q = 0.6$, $\beta = \gamma = 1.8$, and $r_t = 1.9$ kpc.’

p. 681 l -4: change “0.2” to “2”

p. 692 In denominator of second term on left of (10.79) replace R_0 with R_0^2 .

p. 704, eq. (11.13) in denominator $\sigma_k \rightarrow \sigma_k^2$

p. 745, Arias : *voordinate* \rightarrow *coordinate*

p. 758, Hoskins: *Hoskins* \rightarrow *Hoskin*