

Typos and Their Corrections

Corrected in the second printing

- p. 33:* In the bottom paragraph, change GHZ to GHz
- p. 38:* Second paragraph of §2.7, change “a typical ...AGNs” to “AGN”
- p. 55:* The y-axis of Fig. 3.6 should be linear, not log, and the numerical values should be the logarithm of those plotted.
- p. 70:* dL_* should be dL_x in eq. 4.3
- p. 70:* ν_* should also be ν_x
- p. 90:* “measurements of both distance and space” should be “measurements of both distance and time”
- p. 103:* $\sqrt{8/3}$ should be $\sqrt{8}/3$
- p. 115:* The “Blandford-Znajek effect” should be explicitly named
- p. 115:* Eqn. 5.66: a/M in the radical should be $(a/M)^2$
- p. 117:* $\gamma(1 - \vec{\beta} \cdot \hat{n}^{(o)}) = p_\mu u^\mu / E_\infty$
- p. 136:* Reference to Shields (1978)
- p. 141:* In equation 7.15, the numerator of the second term should be r_o^3
- p. 142:* In caption 7.1, make it “parallel to the light solid line”.
- p. 149:* In equation 7.31, e should be η ; and Ω_* in equation 7.34 should be $\Omega(r_m)$
- pp. 160-161:* Equations 7.71 and 7.72 are missing factors of 1/2 (cf. equation 7.55.). In equation 7.71, the 1 inside the square bracket should be replaced by 1/2; in equation 7.72, there should be an overall factor of 1/2.
- p. 166:* Last text line: $T_s \simeq \tau_{\text{tot}}^{-1/4} T_c$

- p. 170:* $\varepsilon = \epsilon/(k_B T)$; also in equation 7.92, $g(\varepsilon, T)$
- p. 197:* Italic i.e. should be Roman
- p. 216:* Pozd'nyakov et al. 1977 should be (1977).
- p. 244:* Label of x-axis in Fig. 8.10 should be ϵ : eV, not keV
- p. 294:* In equation 9.56, third line, + should be =
- p. 401:* A period is missing from the first sentence on the page.
- p. 426:* Permit hyphenation in “anisotropic”.
- p. 434:* Fix smear.
- p. 438:* Remove doubled “FeFe”.
- p. 491:* Third paragraph: remove “have box”.
- p. 534:* “four-currents))” should be “four-currents)”

To be corrected in the third printing

- p. 31:* The “540” spurious sources should be 54; the corresponding inflation of the survey is by 5
- p. 69:* The bolometric correction relative to B-band flux is greater than 10 because $\Delta\lambda/\lambda$ for the B filter is only about 10(thanks to T. Heckman)
- p. 95:* In Equation 5.21, $p_t/\sqrt{g^{tt}}$ should be $p_t/\sqrt{g_{tt}}$
- p. 115:* In the expression for $1 - M_i/M$, the (a/M) in the radical should be $(a/M)^2$.
- p. 137:* \mathcal{G} , which appears first in equation 7.6, needs to be defined. It is the inter-ring torque.
- p. 205:* η in equations 8.5 and 8.7 should be η_E
- pp. 207-208:* The factor $\gamma k_i/m_e$ in the denominator of equation 8.11 should be $k_i/(\gamma m_e)$. It is referred to in the last paragraph of § 8.2.2.1, where it should likewise appear as $k_i/(\gamma m_e)$

and the equation reference should be to equation 8.11 (thanks to E. Agol).

p. 225: In the parenthesis after equation 8.53, + - - should be +-

p. 240: In Equation 8.78, the r should be R .

p. 243: $3 < a < -2$ should be $2 < a < 3$

p. 254: Sentence before Eqn. 8.87 should have a qualification: “where the number of photons near frequency ν is approximated by I_ν/h ”

p. 274: Clarify clause “the field is not necessarily...”; should be “the actual field is not necessarily...”

p. 274: The expression in the square bracket should be $\left(\frac{7}{4}\right) \left(\frac{6}{\pi^3}\right)^{1/7}$
In addition, there should be a remark in text to the effect that in this picture, the magnetic energy is exactly 3/4 the electron energy (thanks to E.S. Phinney).

p. 275: The numerical coefficient in eqn. 9.22 should be 4×10^{58} (also thanks to E.S. Phinney)

p. 280: The ratio $\frac{2\pi m_e c}{\nu_t}$ in equation 9.38 should be $\frac{2\pi m_e c \nu_t}{e}$ (thanks to E. Agol)

p. 292: Equation B.26 should be Equation B.20.

p. 377: Welch should be Welsh

p. 391: Equation 10.95 should have the scaling factor v_4

p. 503: There is an extra factor of i in the right-hand side of equation 14.9

p. 519: Eq. 14.26: $\Omega d\Omega/d \ln \varpi$ should be $2\Omega d\Omega/d \ln \varpi$

p. 519: The definition of epicyclic frequency should be $\kappa^2 = 4\Omega^2 + 2\Omega d \ln \Omega/d \ln r$

p. 537: Eqn. B.1 needs a factor of density inside the divergence.

p. 578: Welch should be Welsh