

## Errata “Introduction to Stellar Dynamics”

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Pag. 12, eq. (1.21): in the square root at the denominator,  $a^2$  should be  $2a^2$ .

Pag. 17, fourth line after eq. (2.5), a  $-$  sign should appear in front of the limit.

Pag. 32, first line after eq. (2.46),  $\sin \vartheta$  is not squared.

Pag. 35, second line after eq. (2.59), substitute *spherical* with *cylindrical*.

Pag. 54, third line before eq. (3.15): “... mass of  $\mathbf{R}_{\text{CM}}$ ” should be “... mass of  $\rho_*$ ”.

Pag. 56, last line: “... positive quantities” should be “... negative quantities”.

Pag. 58, eq. (3.33): in the subscript a norm is missing, it should be  $r = \|\mathbf{R}_{\text{CM}}\|$ .

Pag. 60, first line after eq. (3.41): “*intertia*” should be “*inertia*”.

Pag. 61, second line after eq. (3.47): the sign  $\geq$  should be  $>$ .

Pag. 63, eq. (3.52): in the external square root, the correct expression is  $1 + \sigma(\tau + k)$ .

Pag. 64, first line after eq. (3.55): “... is the dependent ” should be  
“... is the time-dependent”.

Pag. 86, eq. (5.15):  $\kappa_R^2(R)$  should be  $\kappa_R^2(R_0)$ .

Pag. 87, after eq. (5.18) “... aligned with the *X*-axis ...”.

Pag. 96, fifth line,  $Rt$  should be  $R_t$ .

Pag. 101, in eq. (5.68) a factor  $\Omega(R)/\kappa_R(R)$  should multiply the square parenthesis;  
eq. (5.69) is unaffected.

Pag. 146, in eq. (8.31) two typos. The corrected expression is

$$\|\Delta \mathbf{v}_{\parallel}\| \sim \frac{\|\Delta \mathbf{v}_{\perp}\|^2}{2v} \sim \frac{2G^2 M^2}{b^2 v^3}.$$

Pag. 173, one line before eq. (10.6) “... whose “surface” is related to the function ...”.

Pag. 177, one line before eq. (10.19) “... Second Law of Dynamics”.

Pag. 184, eqs. (10.43)-(10.44):  $L_{\text{rad}}^+$  should be  $L_{\text{grav}}^+$ .

Pag. 242, eq. (13.25): in the  $m = 1$  case, at the denominator  $s^{1/2}$  should be  $s$ .  
In the  $m > 1$  case, at the denominator  $2mb^{m-1}$  should be  $2\pi mb^{-1}$ .

Pag. 251, eq. (13.67): at the denominator,  $q_2$  should be  $q^2$ . Second line after the equation, the positivity condition is  $q > 1/\sqrt{2}$ .

Pag. 261, line above eq. (13.108): replace  $\theta$  with  $\vartheta$ , and in the line below  $\vartheta$  with  $i$ .

Pag. 262, eq. (13.109):  $\sin i$  should be  $\sin^2 i$ .

Pag. 263, eq. (13.119):  $\rho_0$  should be  $\rho(0)$ .

Pag. 274, eq. (13.157): inside the first integral, the quantity  $RdR$  is missing.

Pag. 278, Exercise 13.29: in the second line,  $\rho = \rho(m)$  should be  $\rho_* = \rho_*(m)$ .

Pag. 279, Exercise 13.30: in eq. (13.187)  $a$  should be  $a_*$ .

Pag. 279, Exercise 13.31: after eq. (13.189)  $B(a; x, y)$  should be  $B(p, q; x)$ .

Pag. 282, fourth line after eq. (14.2), a  $-$  sign is missing at the r.h.s. of the expression.

Pag. 298, eq. (A14): under the square root,  $\|\mathbf{a}\|$  should be squared.

Pag. 299, second line, “*vecor*” should be “*vector*”.

Pag. 305, eq. (A53): a factor 2 is missing in front of the last integral.

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