

Errata

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D. Boccaletti, G. Pucacco: *Theory of Orbits*.

Volume 1: Integrable and Non-perturbative Methods

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Unfortunately, this book still contains some misprints. We are very grateful to colleagues and students who pointed them out to us. Here we give a list of those cases which may prevent the correct interpretation of the text.

Page 24, Fig. 1.4: the two arrows along the ξ_2 axis must be reversed.

Page 72, 3 lines from bottom: $\frac{M_1}{M_2} \left(\frac{1}{M_1} \frac{dM_1}{dt} - \dots \right)$

Page 96, equation (1.C.107) + 4 lines: $\beta_2 = -\frac{1}{\omega_1} \dots$

Page 140, equation (2.30): $r = \sqrt{q_1^2 + q_2^2} = \lambda^2 + \nu^2$.

Page 142, the first formula is equation (2.36)

Page 142, equation (2.38) + 5 lines: $\ddot{x} - \dots$

Page 144, equation (2.43) + 9 lines: $\Delta\vartheta = \pi\sqrt{2}$.

Page 146, 8 lines from bottom: $\approx 2\pi \left(1 + \frac{\epsilon}{kr_0^2} \right)$.

Page 163, equation (2.90) + 4 lines: $\frac{1}{2} \left(\frac{\sqrt{2|h|}}{r} r' \right)^2 - \dots$

Page 164, equation (2.92): $\dots + \frac{\mu}{r} \mathbf{r} = 0$.

Page 165, 4 lines from bottom: ω is a complex number, there is no absolute value.

Page 181, equation (3.8) + 3 lines: $|X|^2 + |Y|^2 + |Z|^2 < \dots$

Page 193, equation (3.39) + 4 lines: $\sum_{1 \leq j < k \leq N} m_j m_k \leq M^2/2$.

Page 212, line 9 and equation (3.69) + 1 line: $\bar{t} = 2\pi/n$.

Page 213, line 2: $\frac{1}{6} u^2 + \frac{c^2}{2\mu}$.

Page 218, 2 lines from bottom: $\mathbf{r}_i \times \mathbf{r}_k \cdot \dot{\mathbf{r}}_i = 0$.

Page 224, line 13: $\alpha \neq 0$.

Page 227, equation (3.94): $\dots - y_j^\circ \frac{d}{dt} (\lambda^2 \omega_3) = \dots$

Page 227, equation (3.95): $\lambda^2 \omega_3 = \dots$

Page 230, equation (3.103):
$$\begin{pmatrix} 0 & -\omega_3 & \omega_2 \\ \omega_3 & 0 & -\omega_1 \\ -\omega_2 & \omega_1 & 0 \end{pmatrix}.$$

Page 231, equation (3.109): $\dots + \dot{\boldsymbol{\omega}} \times \boldsymbol{\rho}_k + \dots$

Page 244, equation (4.13) + 5 lines: $\frac{\partial W_2}{\partial \mathbf{p}} = \frac{m_3}{M} (\dots$

Page 273, equation (4.77): $\dot{p}_r = \frac{p_\varphi^2}{r^3} + \frac{\partial U}{\partial r}$.

Page 279, line 21: $Q_1 = L$.

Page 281, line 3: $-q_2 \frac{\partial^2 q_1}{\partial Q_1^2} \Big) + \omega J \dot{Q}_2$.

Page 289, equation (4.119) + (4.120a): last element of $\mathbf{K}(u)$ is $-u_1$
instead of $-u_2$.

Page 293, equation (4.129) - lines 4 and 11: $\bar{\mu}$ instead of $\tilde{\mu}$.

Page 294, equation (4.134): $\dots = \frac{3}{2} \sqrt[3]{3}$.

Page 296, last line: $A_{2i+1} = \dots$ and $D_{2i+1} = \dots$

Page 330, last line: $\lambda = (u+v)^2, \quad \mu = (u-v)^2$.

Page 369, equation (A.26) + 2 lines: $\dots \sum_j \frac{\partial}{\partial q^j} (G_i^{-1} p_i) \frac{dq^j}{dt}$.

Theory of Orbits

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