# Errata
## *Essentials of Hamiltonian Dynamics*

### Updated 30 November, 2011

p. 55 Exercise 2.8 Replace "$n$ degrees of freedom and possibly" by "include the possibility of"

p. 82 In equation beginning $J_2 = \cdots$, replace $2 \int_{u_1}^{u_2}$ by $\frac{1}{\pi} \int_{u_1}^{u_2}$

p. 127 In equation for $h^{(3)}$, replace $-\frac{7}{36}$ by $-\frac{7k}{36}$ and replace , ). by $)\omega^3$, Equation should read

$$h^{(3)}(q,p) = \sqrt{3} \left( -\frac{7k}{36} q_1^3 + \frac{3}{16} q_1^2 q_2 + \frac{11k}{12} q_1 q_2^2 + \frac{3}{16} q_2^3 \right) \omega^3,$$

p. 127 In equation for $h^{(4)}$, enclose the righthand side in parentheses and append $\omega^4$ after final parenthesis. Equation should read

$$h^{(4)}(q,p) = \left( \frac{37}{128} q_1^4 + \frac{25k}{24} q_1^3 q_2 - \frac{123}{64} q_1^2 q_2^2 - \frac{15k}{8} q_1^2 q_2^2 - \frac{15k}{8} q_1 q_2^3 - \frac{3}{128} q_2^4 \right) \omega^4.$$

p. 130 In third equation, replace

$$\begin{pmatrix} y_k + K \sin x_k \\ -x_k \end{pmatrix}$$

by

$$\begin{pmatrix} x_k \\ y_k + K \sin x_k \end{pmatrix}$$

p. 131 line 3 Replace 10000 by 250000

p. 132 Figure 5.7 caption: replace 10000 by 250000

p. 143 Exercise 5.2 Replace $h^{(4)}(q,p)$ by $h(q,p)$

p. 145 Exercise 5.6 Replace 10000 by 100000

p. 175 line 2 Replace $a_+$ by $\mathbf{a}_+$

p. 177 Exercise 6.13 Replace "precession rate" by "polar angle"

p. 183 line 9 Replace "`mon`" by "`#`"