



## Analytical Mechanics for Relativity and Quantum Mechanics

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### Errata

- Page vii, fourth paragraph, sixth line, “an longer” should read “a longer”.
- Page 43, in first line of Exercise 2.7(b), “Find” should be replaced by “Use the definition of  $\underline{p}_n$  from eqn (2.104) to write”.
- Page 56, in line following eqn (3.48), change “fwith” to “with”.
- Page 93, in eqns (5.21 and 5.22) all  $\delta\alpha$  should read  $\delta a$ .
- Page 97 in footnote 31,  $\delta\alpha$  should read  $\delta a$ .
- Page 150, in next to last line of Exercise 7.7,  $Y_m^1(\theta, \phi)$  should read  $Y_1^m(\theta, \phi)$ .
- Page 200, “as  $\varepsilon \rightarrow 0$ ” should be moved from eqn (8.283) to the text following that equation.
- Page 207, eqns (9.34 and 9.35) should be centered.
- Page 277, in eqn (11.51)  $t$  should be replaced by  $r$ .
- Page 287, in eqn (12.9)  $p_k(q, \dot{q})$  should read  $\partial p_k(q, \dot{q})$  in the middle expression.
- Page 303, in Exercise 12.3(c), “any two of  $L_x, L_y$ , and  $L_y$  are” should read “any two of  $L_x, L_y$ , and  $L_z$  are”.
- Page 307, last sentence in **Note to the Reader** should be replaced by, “Section 6.3 discusses this same issue in the context of the traditional theory.”
- Page 308, in the third line after eqn (13.11),  $\delta t = C_0\delta\alpha$  should read  $\delta t = \delta a C_0$ .
- Page 311, Theorem 13.4.1 should be titled “Hamilton’s Principle in Extended Phase Space”.
- Page 431, in Exercise 17.4, replace  $a$  by  $a_i$  throughout. Also, “and  $a$  is a given constant” should read “and  $a_i$  are given constants”.
- Page 431, in Exercise 17.5, commas should be added after  $p_{2z}$  and  $Z$ .
- Page 432, in Exercise 17.6, parts a,b,b,c should be parts a,b,c,d.
- Page 437, in the Proof of Lemma 18.2.2, the last expression on the first line should read  $(\partial p(q, Q)/\partial Q)$ .
- Page 457, in Exercise 18.5, “number as discussed” should read “number discussed”.
- Pages 436, 451, 540, 550, 554, 556, 563, 588, “Desloges” should read “Desloge”.
- Pages 379, 490, all  $q^{(ch)}$  should read  $q^{(ch)}$ .
- Pages 8, 9, 223, 230, all superscripts (*ext*) should read (ext).
- Pages 207, 209, 216, all superscripts (*cm*) should read (cm).

