November 6,1999

## Minor errors

## First printing only:

page xii: second line, the "to" in "the use of computers to" should be deleted. page xii: line -3 (third from bottom): "taken by students who have studied"

page xvi: "...when we were too busy to do so," not "when we were to busy to do so"

p. 51: Six lines before Example 1.3.9, the end parenthesis after "by a scalar" should not be there.

p. 116: In Equation 1.8.4, parentheses should be added:  $[\mathbf{D}(f\mathbf{g})(\mathbf{a})]$ , not  $[\mathbf{D}f\mathbf{g}(\mathbf{a})]$ .

p. 241 Exercise 2.5.16, part (b) One "if," not two: "Show that if  $x_0 \ldots$ ."

p. 487: In the text between Equations 5.4.21 and 5.4.22, "than" rather than "that": "... remarkably simpler computations than one might expect."

## Both printings:

p. 83, Equation 1.5.29, the right parenthesis missing. The equation is

 $|\mathbf{g}(\mathbf{x}) - \mathbf{g}(\mathbf{x}_0)| < \epsilon.$ 

p. 204, In the third line, "an prerequisite" should be "a prerequisite."

p. 205, first line after Equation 2.7.37, add a comma: "By definition,". Add a period at the end of the first margin note. In the third line of Example 2.7.9, "drivataives" should be "derivatives." In line -2, replace "Lipchitz" by "Lipschitz."

p. 349 Exercise 3.8.4: The hint to part (b) needs a period to end the sentence.

p. 430, Definition 4.10.6: the period after "its latitude  $\varphi$ " should be a comma.

p. 433: the period after Equation 4.10.23 should be a comma, and there should be a comma three lines up from Equation 4.10.24: "since  $det[D\Phi] = r$ , which is only zero...".

p. 437: the first line after Equation 4.11.7, "an decreasing alternating series" should be "a decreasing alternating series."

p. 446: The period at the end of Equation 4.11.47. should be a comma.

p. 497 First line of Exercise 5.6.1, extra "by" should be deleted.

p. 503, in the text following Equation 6.2.8 but before "Elementary Forms," there should be a comma after the dots:  $(\vec{\mathbf{v}}_1, \ldots, \vec{\mathbf{v}}_k)$  should be  $(\vec{\mathbf{v}}_1, \ldots, \vec{\mathbf{v}}_k)$  and  $(x_{i_1}, \ldots, x_{i_k})$  should be  $(x_{i_1}, \ldots, x_{i_k})$ .

p. 509, Definition 6.2.13: There is a missing end parenthesis in the displayed equation. The term labeled "*l* vectors" should be  $(\vec{\mathbf{v}}_{\sigma(k+1)}, \ldots, \vec{\mathbf{v}}_{\sigma(k+l)})$ .

p. 514: in Equation 6.3.6 In the first line, there is a missing close parenthesis. It should be

$$\sum_{\substack{C \in \mathcal{D}_N(\mathbb{R}^n) \\ A \cap C \neq \mathcal{Q}}} \varphi\left( P^o_{\gamma(\mathbf{u})} \left( \frac{1}{2^N} \overrightarrow{D_1} \gamma(\mathbf{u}), \dots, \frac{1}{2^N} \overrightarrow{D_k} \gamma(\mathbf{u}) \right) \right)$$

p. 517 In the paragraph on 0-form fields, the sentence "if f is a function on an open subset  $U \subset \mathbb{R}^n$  and  $f: U \to \mathbb{R}$  is a function ... " is repetitive and should be "If  $U \subset \mathbb{R}^n$  is open and  $f: U \to \mathbb{R}$  is a function ... " In the first line of the last paragraph, "that that" should be "that."

**Page 597**, Equation A3.6, the right parenthesis missing; the equation should read

$$\left|\mathbf{f}(\mathbf{a}_0)\right| \left| \left[\mathbf{D}\mathbf{f}(\mathbf{a}_0)\right]^{-1} \right|^2 M = k.$$

p.604, Equation A5.14, comma needed after ....

p. 627, 2nd paragraph, line 5: "to the horizontal subset," not "to horizontal subset."

p. 631, second margin note, third line: "is the least upper bound," not "is least upper bound."

p. 653 margin note: add comma after ....

p. 655, Equation A20.16, first line, add comma:  $P_{\mathbf{x}}^{o}(\vec{\mathbf{v}}_{1},\ldots,\vec{\mathbf{v}}_{k+1})$ .

p. 656, first line: delete the "to" in "to need."

p. 664, the paragraph beginning "Since X is compact" should end with a period.