Final errata for the first edition

p. 89 Definition 1.6.1: a nonempty subset $C \subset \mathbb{R}^n$.

p. 106 Definition 1.7.7 should have been stated more carefully:

Let U be an open subset of $\mathbb{R}$, and $f : U \to \mathbb{R}$ a function. Then f is differentiable at a, with derivative m, if and only if . . . .

p. 108 Equation 1.7.24: the f should be $\mathbf{f}$.

p. 202 The text following Equation 2.7.26 is perhaps not clear. It should be:

The length of this matrix is

P. 211 Last line of Example 2.8.1, $a_n = 1 - 1/2^{n+1}$ should be $a_n = 1 - 1/2^n$.

p. 212 The last paragraph should be replaced by

What goes wrong for Example 2.8.1 is that whenever the product in the Kantorovich inequality equals $1/2$, the denominator $1-2k$ in Equation 2.8.3 is 0 and c is infinite, so the inequality $|\mathbf{h}_n| \leq 1/(2c)$ in Equation 2.8.4 is meaningless. When the product in the Kantorovich inequality is strictly less than $1/2$, we are guaranteed that superconvergence will occur.

p. 246 Exercise 2.8.3, part (a): The displayed equation should be

$$|A\vec{\mathbf{b}}| \leq \|A\|\,|\vec{\mathbf{b}}|.$$

p. 401 Equation 4.6.17: the left-hand side should be $\int_{[-1,1]^2} f(\mathbf{x})\,|d^2\mathbf{x}|$. Similarly for the margin note.

p. 433 Next-to-last line of first paragraph: $\det[\mathbf{D}P]$, not $\det[DP]$.

p. 441 Definition 4.11.9: The sequence of functions should be from $\mathbb{R}^n$ to $\mathbb{R}$, not $\mathbb{R}^k$ to $\mathbb{R}$:

A sequence of functions $f_k : \mathbb{R}^n \to \mathbb{R}$ converges uniformly to a function f if for every $\epsilon > 0$, there exists K such that when $k \geq K$, then, for all $\mathbf{x} \in \mathbb{R}^n$, $|f_k(\mathbf{x}) - f(\mathbf{x})| < \epsilon$.

p. 468 Part (b) of Exercise 4.11.4: the integral should be from 0 to ∞ not from a to b.

p. 510 Figure 6.2.1: "Take a pack of $k + l$ cards" not $k + 1$ cards.

p. 516 Equation 6.3.14: the s^2 in the 5th line should be $-s^2$.

p. 522 Example 6.4.9 was a badly stated example, as the parametrization is not orientation preserving. In the second line of Equation 6.4.20, the $\det[\mathbf{D}\gamma]$ over the brackets should have a minus sign in front.

p. 577 Exercise 6.5.2: We should have written $T : \mathbb{R}^n \to \mathbb{R}^n$.

p. 535 Equation 6.5.26: the determinant is 3, not 1.