Errata: Introduction to Scientific Computing, 2nd Ed.

p. xi URL scrambled

p. 5 first display: stray backslashes

p. 8 2nd display from foot: `2*pi*` missing inside `sin`

p. 33 l. 16 insert "a" between "write" and "second".

p. 41 The formula giving the form of τ illustrating relative error is meaningless. Given d, a g can always be found for which the condition holds. (Some characterization like `g=ceil(log2(x))` is needed.)

p. 42 In script `ExpTaylor` l. -7: `for k=1:nTerms`

p. 43 Last display: x_2 should be x^2.

p. 47 First sentence of **P1.4.5** ends with a question mark.

p. 53 l. -2 Replace "off" by "of".

p. 60 l. 8 Case error: `C1.long.d`, not `C1.Long.d`

p. 61 3rd line in spec for `Convert`: `x is the value of f.`

p. 62 2nd line in spec for `Pretty`: extra "is a".

p. 63 Comments in `PadeCoeff`: replace square brackets by parens.

p. 64 In **P1.6.2** replace "approximates" by "approximants."

p. 69 Color mnemonics for white, magenta, and black are w, m, and k resp.

p. 79 l. 2 of script: Replace `InverpV` by `InterpV`.

p. 81 l. 2 Replace `pval` by `pVal`.

p. 84 l. -5 Divide equations 2, 3, and 4 by $(x_2 - x_1)$, $(x_3 - x_1)$, and $(x_4 - x_1)$, respectively.

p. 171 Last display: c_{i-j} should be c_{i-j+1}.

p. 172 End of first paragraph: Each "$\times$" designates a scalar that can be nonzero.

p. 173 l. 1 Replace "reference" by "refer."

p. 173 last displayed equation: $T(4,5) = -1$.

p. 175 l. 1 should be `A = [1 zeros(1,4); ...`
The discussion that follows about "extraction of blocks" requires a matrix with at least 6 columns; it is not feasible with the displayed matrix `A`.

p. 177 l. -4: Ax not Az.

p. 179 `A(5,:)` looks like $[0\,0\,0\,0\times\times\times]$.

p. 188 The table `F` of function values set up (three ways) on this page has x running down the rows and y across the columns. This is contrary to the convention used in MATLAB's plot commands like `contour`.

p. 189 In `SampleF` the comments say that the function being sampled is $\exp(-(x^2+3y^2))$, but the code and text following say $\exp(-(x^2+2y^2)/4)$.

p. 192 M-file `SampleF2` actually evaluates (instead of the integrand displayed)

$$\frac{1}{((x-.3)^2+.1)((y-.4)^2+.1)} + \frac{1}{((x-.7)^2+.2)((y-.3)^2+.2)} - 6.$$

p. 194 l. 22: The required function `[A,b]=Poisson(m,n)` presumably returns the matrix A and right-side vector b, not the solution of the system, to judge by the calling sequence. (And since there are no sources or sinks of heat, isn't this a Laplace equation?) The code for `fnorth` needs a "`.*`".

p. 208 The comments in function files `MatVecRO.m` and `MatVecCO.m` are identical, although they correctly describe only the latter's operation.

p. 209 2nd line of text: replace "are" by "is."

p. 210 l. -5: ... so we can vectorize as follows (assuming that x is a column vector):

p. 212 Comments in `UTriSol`: the first line should read `x = UTriSol(U,b);` in the third line replace `X` by `x`.

p. 233 l. -1: `[L,U,P]` not `[P,L,U]`.

p. 235 The proof of Theorem 6 repeatedly uses the fact that $\|Mx\| \leq \|M\|\|x\|$. However, this property of norms has not been stated previously.

p. 246 **P7.1.2**: Stray backslashes, and "car" should be "^".

p. 256 In the second-to-last display (matrix T) the entries e_{n-1} should be e_n.

p. 258 First comment line in function M-file should read "`[g,h] =`" instead of "`G =`."

p. 274 Function `MakeScalar` is missing from the list.

p. 289 **P8.1.12** l. 3 Replace $1/(x - x_c$ by $1/(x - x_c)$, and $R_c(x_c$ by $R_c(x_c)$.

p. 294 l. -4 Replace "less" by "fewer".

p. 304 In **P8.2.2**, write parametric equations for the ellipse in the usual way. Then *any* triangle with vertices $P(t)$, $P(t + \frac{2}{3}\pi)$ and $P(t + \frac{4}{3}\pi)$ has maximal area. This can be deduced from the fact that the tangent to the ellipse at any vertex of a maximizing triangle is parallel to the opposite edge.

p. 305 In **P8.2.7**, third display, the vector on the right should be

$$\begin{bmatrix} b\,x(t)/a \\ a\,y(t)/b \end{bmatrix}$$

p. 315 In the code for `JSepV` the last line is missing:

```
J = [ Rot1*[beta1*s1;-gamma1*c1] Rot2*[-beta2*s2;gamma2*c2]];
```

p. 336 l. -2 before §**9.1.4**: $F(z) = z - h_n f(t_{n+1}, z) - y_n$.

p. 339, third display from the foot. The middle equation is $2b\alpha = 1$. The following sentence should read, "$a = b = 1/2$ and $\alpha = \beta = 1$."

p. 340 The second line following "`elseif k==2`" should read

```
k2 = h*feval(fname,tc+h,yc+k1);
```

as it does in the script `RKStep` supplied with the text, and corresponding to the last display but one on page 339.

p. 344 l. 8: stray `tt`.

p. 363 col. 1 l. -8: `cell`, 60 instead of `cell`, 160.