

Corrections and emendations (as of 23jul20) for
A Practical Guide to Splines (revised edition)
 by Carl de Boor

Each emendation is preceded by an ‘e’.

All items are of the form

$a/b/c$: A --> B [C]

meaning that, on **page** a , in **paragraph** or **item** b , in **line** c , the text A should be changed to the text B, with C an additional comment. A negative paragraph number b or line number c indicates a count from the bottom (of the page or the specified paragraph). For example, vi/4/-1 = vi/-3/2 ends in ‘text.’ Comments are rare; a missing B means that the text A is to be omitted; a missing A means that the text B is to be inserted.

34//1: $\|\hat{\beta}\| \rightarrow \|\hat{\beta}\|$

37//1: $\|\hat{\alpha}\| \leq 3\|\hat{\beta}\| \rightarrow \|\alpha\| \leq 3\|\hat{\beta}\|$

38/problem 5./-2: $\sqrt{x} \rightarrow \sqrt{|x|}$

38/problem 5./-1: faster --> no faster

42/(9)/denominator: $\Delta\tau_{i+1} \rightarrow \Delta\tau_{i-1}$

43/(13)/RHS: + --> -

65//4: $1, \dots, n-1$, with --> $0, \dots, n$, with $\tau_0 = \tau_1$ and $\tau_{n+1} = \tau_n$, hence

66/Problem 5./1: V(21) --> V(20)

66/Problem 5.(c)/3: $\|\hat{E}'_4\| = \rightarrow \|\hat{E}_4^{(4)}\| =$

66/Problem 5.(c)/-1: V(21) --> V(20)

88/2/third display: $f ds/k! \rightarrow f(s) ds/(k-1)!$ [thank you, Neil Jackson!]

89/-2/2: $(\cdot - t_{j+1})_+^0 - (\cdot - t_j)_+^0 \rightarrow (t_{j+1} - \cdot)_+^0 - (t_j - \cdot)_+^0$ [thank you, Jörg Peters!]

90/-2/-3,-1: $t_{j+1} \rightarrow t_{j+2}$

e95//1: . --> (Marsden [1970: Theorem 1]).

e112//INTEGER: JP1 --> JOUT, JP1

e112//PARAMETER:) --> , JOUT = MAX(JHIGH, (J+1)*(INDEX-1))

e112//REAL: BIATX, T --> BIATX(JOUT), T(LEFT+JOUT)

e112//DIMENSION: [delete the entire line]

e116/(11)/1: . --> (Marsden [1970: Lemma 2]).

e116/(12)/ : . --> $= \sum_j \frac{\nabla \alpha_j}{\nabla t_{jk}^*} B_{j,k-1}$.

e118//REAL: BREAK, COEF, T --> BREAK(L+1), COEF(K,L), T(N+K)

e118//DIMENSION: [delete the entire line]

141/3/6: approximation --> approximation, introduced in Schoenberg [1967],

212/10 P = 1./: [insert below it the statement: SIX1MP = 0.]

212/20 P = 0./: [insert below it the statement: SIX1MP = 6.]

212/SIX1MP = 6./(1.+Q)/: [move this line to right after the line 59 P = ...]

e225//REAL: T(1) --> T(N+K)

e225//DIMENSION: [delete the entire line]

e242//1: --> 12. Use the ideas in Problem 1 to prove that the smoothest interpolant f to the data in (VIII.1)Example, in the sense that $\int_{\tau_1}^{\tau_{n+1}} (D^2 f(t))^2 dt$ is minimized, is necessarily the first derivative of an element of $\mathcal{S}_{6,\mathbf{x}}^{\text{nat}}$, with $\mathbf{x} = (\tau_1, \dots, \tau_{n+1})$.

268//3: $s_i - [\tau_i, \tau_{i+1}]f$ and $s_{i+1} - [\tau_i, \tau_{i+1}]f$ --> $s_i \Delta \tau_i - \Delta f_i$ and $s_{i+1} \Delta \tau_i - \Delta f_i$

e273//REAL: (1) --> (*) [twice]

297/FORTRAN snippet/ 1: NY --> NY+KY
 /-3: KY --> KX [thank you, William Rummler!]

314/-2/4: exiting --> exciting [thank you, John Rice!]

e336: --> M. J. MARSDEN [1970], "An identity for spline functions with applications to variation-diminishing spline approximation", J. Approx. Theory **3**, 7-49; p. 95, 116.

336/M. J. Marsden [1972]/2: **6** --> **6**(3)

e343: --> Greville sites 96

Answers to specific problems (at the end of chapters) are available upon reasonable request.