

**ERRATA to**  
**“FOURIER ANALYSIS AND ITS APPLICATIONS”**  
 (first three printings)

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The following are errata for the early printings of the book. Some of them were corrected in the second printing, others in the third, and others in the fourth. Errata for the fourth and later printings (most of which also pertain to the earlier printings) are in a separate document.

Page 5, line 5: Here  $\mathbf{n} \dots$   $\rightarrow$  Here  $\nabla u$  is the gradient of  $u$  in  $\mathbf{x}$  and  $\mathbf{n} \dots$

Page 7, line 9: graviatational  $\rightarrow$  gravitational

Page 12, line –15: of the form  $u$  of the form  $\rightarrow$   $u$  of the form

Page 17, Exercise 6, line 1: family  $\rightarrow$  family of solutions

Page 25, line –13: sems  $\rightarrow$  seems

Page 27: Figures 1 and 2 are reversed.

Page 31, line 3 of the exercises: Examples 1 and 2  $\rightarrow$  Examples 2 and 1

Page 31, line 5 of the exercises: caculating  $\rightarrow$  calculating

Page 40, line 10: entry 4  $\rightarrow$  entry 6

Page 42, line –13: entry 2  $\rightarrow$  entry 1

Page 42, line –11: entry 1  $\rightarrow$  entry 2

Page 68, line 10: The following problems  $\rightarrow$  Exercises 6–8

Page 74, line –8: but only that the  $\rightarrow$  but only that

Page 78, line 13: Theorem 3.3  $\rightarrow$  Theorem 3.2

Page 83, statement of Dominated Convergence Theorem, line 4:  $x \in D$   $\rightarrow$   $\mathbf{x} \in D$

Page 90, statement of Theorem 3.10, line 3: an an  $\rightarrow$  an

age 147, line –1:  $\lambda_k$  should be  $\tilde{\lambda}_k$  in all three occurrences.

Page 148, line –6: In the denominator of the fraction to the right of center,  $J_1(\lambda_k^2)$   $\rightarrow$   $J_1(\lambda_k)^2$

Page 172, line 5: §6.2.  $\rightarrow$  §6.3.

Page 173, Exercise 7: Expand  $f$  is a  $\rightarrow$  Expand  $f$  in a

Page 176, Equation (6.21):  $1 - s^2$   $\rightarrow$   $1 - x^2$

Page 183, line –2:  $c^u \nabla^2 u$   $\rightarrow$   $c^2 \nabla^2 u$

Page 216, line –4 (excluding the figure):  $\text{Res}_{z=i}$   $\rightarrow$   $\text{Res}_{z=ia}$

Page 233, line –9:  $\Delta_\alpha \hat{f} = \Delta_0 \hat{f}$   $\rightarrow$   $\Delta_\alpha \hat{f} = \Delta_0 \hat{F}$

Page 235, line 2 of Exercise 2:  $dy ds$   $\rightarrow$   $ds dy$

Page 236, Exercise 9b:  $\hat{f}(\xi)$   $\rightarrow$   $\hat{F}(\xi)$  and  $\Delta_0 \hat{f}$   $\rightarrow$   $\Delta_0 \hat{F}$

Page 239, line 8:  $\widehat{fG} \rightarrow \widehat{F\widehat{G}}$

Page 251, formula (7.39):  $m = 0 \rightarrow n = 0$

Page 262, caption of Figure 8.1:  $Si(t) \rightarrow \text{Si}(t)$

Page 265, Exercise 12, line 1: Exercise 9  $\rightarrow$  Exercise 11

Page 272, Exercise 1: Exercise 6  $\rightarrow$  Exercise 8

Page 278, line 1 of Exercise 8 (first printing):  $u'_1 - u'_2 + u_1 - u_1 u_2 \rightarrow u'_1 - u'_2 - u_1 - u_2$

Page 278, Exercise 8, line 1 (second and third printings): two consecutive minus signs should be a single minus sign

Page 282, line -1: Insert  $e^{zt}$  in the numerator of the last fraction, just before the  $\sinh[(l - x)z/c]$ .

Page 306, line -10: Begin a new paragraph with “We shall...”

Page 313, Exercise 9, line 4: continuously  $\rightarrow$  infinitely

Page 330, last line of paragraph 3:  $F \rightarrow f$

Page 339, line 2 of Exercise 1:  $\widehat{f} \rightarrow \widehat{F}$

Page 345, line 13: Example 2  $\rightarrow$  Example 3

Page 354, line -4: Exercise 7  $\rightarrow$  Exercise 8

Page 360, line 3: the 1 to the right of the curly brace (in the phrase “1 if  $0 \leq |x| \leq ct$ ”) should be  $1/2c$ .

Page 371, line 7: Insert a minus sign before  $(\lambda - \lambda_0)$ .

Page 371, line 9: Delete the minus sign before  $\int_a^b$ .

Page 371, line 10: Delete the minus sign before  $\int_a^b$ .

Page 371, line 11: negative  $\rightarrow$  positive

Page 389, lines -6 and -5: All three occurrences of  $\alpha_2$  should be  $\alpha_2 + \pi$

Page 391, line -7:  $F(\mathbf{x}, t) \rightarrow \sigma^{-1}F(\mathbf{x}, t)$

Page 401, line 8:  $\int_0^\infty u^{z-1}(1-u)^{w-1}du \rightarrow \int_0^1 u^{z-1}(1-u)^{w-1}du$  (change  $\infty$  to 1 in the second integral)

Page 403, line 2:  $\text{Re } z > 0 \rightarrow \text{Re } z > 0$ . (insert period)

Page 414, Section 2.5, number 4:  $\sin \frac{(2n-1)\pi x}{x} \rightarrow \sin \frac{(2n-1)\pi x}{l}$

Page 421, line -2:  $8\epsilon^2 \rightarrow 2\epsilon^2$

Page 429: At the top of the second column, add:  $\Gamma$  (gamma function), 399

Page 431: gamma function, 398  $\rightarrow$  gamma function, 399