

**ERRATA to  
“FOURIER ANALYSIS AND ITS APPLICATIONS”**

(4th and later printings by Brooks/Cole and  
all printings by the American Mathematical Society)

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Last updated December 6, 2013

Additional corrections will be gratefully received at `folland@math.washington.edu`.

Page 28, item 14:  $\sum_1^\infty \rightarrow \frac{2}{\pi} \sum_1^\infty$

Page 31, bottom: Insert the following material that somehow got deleted: “shall present some variations of this result under other conditions on  $f$ . We first define the class of functions with which we shall be working.”

Page 33, line -3:  $\int_{-\pi+\theta}^{\pi+\theta} \rightarrow \int_{-\pi-\theta}^{\pi-\theta}$

Page 44, line 5: extiensions  $\rightarrow$  extensions

Page 61, Exercise 1a: (2.10)  $\rightarrow$  (2.12)

Page 61, Exercise 1b: (2.12)  $\rightarrow$  (2.14)

Page 65, formula (3.9):  $|a_n|^2 \rightarrow \|a_n\|^2$

Page 76, line 3 of proof of Lemma 3.2:  $\sum_m^n \rightarrow \sum_M^N$  (two places, to avoid conflict with use of  $n$  as index of summation)

Page 90, last line of Theorem 3.10:  $\langle f, \phi_n \rangle \rightarrow \langle f, \phi_n \rangle_w$

Page 90, line -8:  $\langle f_1, \tilde{f}_2 \rangle \rightarrow \langle f_1, \tilde{f}_2 \rangle_w$

Page 111, line -2: (4.22)  $\rightarrow$  (4.24)

Page 114, Exercise 8a, line 2: (2.24)  $\rightarrow$  (2.27)

Page 151, line 5: §4.4  $\rightarrow$  §4.5

Page 176, formula (6.21):  $+m^2y \rightarrow -m^2y$  and  $x \rightarrow s$

Page 179, formula (6.26):  $P_n^{|m|}(\phi) \rightarrow P_n^{|m|}(\cos \phi)$

Page 190, lines -8 and -7: Delete “it defines a polynomial of degree  $n$  only when  $\alpha$  is not a negative integer, and”.

Page 190 line -1:  $k + 1 - \alpha \rightarrow k + 1 + \alpha$

Page 197, line -12:  $\nu^2y \rightarrow +n^2y$

Page 205, line 0: Delete the incorrect page header.

Page 206, line 3 of (v): §8.1  $\rightarrow$  §8.2

Page 213, Exercise 6: defining  $f_{t+s} \rightarrow$  defining  $f_t * f_s$

Page 214, line -2:  $i(d/d\xi)e^{-i\xi} \rightarrow i(d/d\xi)e^{-i\xi x}$

Page 216, next-to-last displayed formula:  $\text{Res}_{z=i} \rightarrow \text{Res}_{z=ia}$

Page 222, line 1: 2.7 of §2.4 → 3.6 of §3.4  
 Page 224, Exercise 7, line 3: Theorem 2.3 → Theorem 2.5  
 Page 233, last displayed formula:  $\Delta_0 \hat{f}$  →  $\Delta_0 \hat{F}$   
 Page 235, Exercise 7, last line:  $e^{-i(b-a)t/2}$  →  $e^{-i(a+b)t/2}$   
 Page 236, line 2 of Exercise 10:  $f' + cf = 0$  →  $f'(x) + cx f(x) = 0$   
 Page 242, line -1:  $\lim_{\delta \rightarrow 0}$  →  $\lim_{\epsilon \rightarrow 0}$   
 Page 279, formula (8.18):  $\alpha\beta \neq 0$  →  $(\alpha, \beta) \neq (0, 0)$   
 Page 286, Exercise 9c, line 1: period  $2l$  → period  $4l/c$   
 Page 327, line -2:  $1 - t$  →  $2\pi - t$  (2 places in exponents)  
 Page 328, line 3:  $1 - t$  →  $2\pi - t$   
 Page 333 (starting below formula (9.27)) and page 334:  $\hat{f}$  →  $\hat{F}$  (numerous places!)  
 Page 354, Example 1, line 1: complex → nonzero  
 Page 355, line 4:  $(\alpha\alpha' \neq 0, \beta\beta' \neq 0)$  →  $((\alpha, \alpha') \neq (0, 0), (\beta, \beta') \neq (0, 0))$   
 Page 371, formula (10.32)  $v_a$  (in the integral) →  $v_b$   
 Page 379, formula (10.35):  $xu(x)$  →  $xu'(x)$   
 Page 381, first line after second displayed formula:  $1/\mu\sqrt{x_-x_+}$  →  $1/|\mu|\sqrt{x_-x_+}$   
 Page 411, line 9:  $\frac{A(LB)^{n-1}}{(n-1)!}$  →  $\frac{A(LB)^{n-1}}{(n-1)!}|x-x_0|^{n-1}$   
 Page 415: Answer to Exercise 3 in §3.2 should be  $f_2(x) = x^2 - \frac{1}{3}$ .  
 Page 417, Answer to Exercise 10b in §4.2:  $\pi^2 kt$  (in exponent) →  $\pi^2 k$   
 Page 417, Answer to Exercise 10c in §4.2: The sum should be multiplied by  $e^{-kt}$ .  
 Page 420, Answer to Exercise 2 in §6.3:  $P_2^2(\cos \theta)$  →  $P_2^2(\cos \phi)$   
 Page 422, Answer to Exercise 9b in §7.4:  $e^{-\nu b}$  →  $e^{-\nu\beta}$  (six places)  
 Page 429, top line, second column:  $\Gamma$  →  $\Gamma$