ERRATA to “INTRODUCTION TO PARTIAL DIFFERENTIAL EQUATIONS” (2nd ed.)
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Additional corrections will be gratefully received at folland@math.washington.edu.

Page 2, line −7: \( a_n \rightarrow \alpha_n \)
Page 3, line 1 after “Function Spaces”: dente \( \rightarrow \) denote
Page 7, proof of Prop. 0.6, line 4: \( re^{-r^2} \rightarrow re^{-\pi r^2} \)
Page 12, line 14: \( e^{1/(1-t^2)} \rightarrow e^{1/(t^2-1)} \)
Page 13, third line of proof of Theorem 0.19: take \( \zeta_j = \psi \phi_j / \Phi \), where \( \psi \in C_c^\infty (\bigcup_1^N W_j) \) and \( \psi = 1 \) on \( K \).
Page 16, line 5: reamins \( \rightarrow \) remains
Page 18, line −6: graddaddy \( \rightarrow \) granddaddy
Page 43, second-to-last displayed equation: \( \partial_j^t \rightarrow \partial_j^t \)
Page 43, last displayed equation: \( |\alpha|_j \rightarrow |\alpha_j| \)
Page 61, Lemma 1.53: You can replace \( (d/2)^k \) by \( d^k \), and the proof is trivial. (Exercise!)
Page 67, 3rd line of proof of Theorem 2.19: \( \hat{f} \rightarrow \hat{u} \)
Page 69, line 2: \( C^1 \rightarrow C^2 \)
Page 77, line −7: Insert “the final paragraph of” before “§4B.”
Page 84, line 12: (2.31) \( \rightarrow \) (2.32)
Page 87, line 7: \( \delta(x, y) \rightarrow \delta(x − y) \)
Page 87, first line after Claim (2.38): calleed \( \rightarrow \) called
Page 91, line 1: (2.37) \( \rightarrow \) (2.40)
Page 97, second display in proof of Theorem 2.48: \( \omega_{n-1} \rightarrow \omega_n \)
Page 97, next line after preceding item: (2.44) \( \rightarrow \) (2.46)
Page 99, line −10: \( P_k \Delta \vec{P}_j \rightarrow \vec{P}_k \Delta P_j \)
Page 100, line −10: ser \( \rightarrow \) set
Page 100, line −1: proerties \( \rightarrow \) properties
Page 105, lines 9 and 14: \( \frac{n-1}{r} \rightarrow \frac{n-1}{r} f'(r) \)
Page 109, Exercise 5, Hint: \( e^{i\theta} \rightarrow e^{ik\theta} \)
Page 112, line −5: corvilinear \( \rightarrow \) curvilinear
Page 113, line 11: \( \frac{\partial^2 u}{\partial y_j^2} \rightarrow \frac{\partial^2 U}{\partial y_j^2} \)
Page 118, Remark, line 2: \( C^1(\overline{\Omega}) \rightarrow C^2(\overline{\Omega}) \)
Page 119, last line of proof of Prop. 3.6: right \( \rightarrow \) left
Page 121, Proposition (3.10), line 5: \( \|f\|_\infty \rightarrow \|f\|_p \)

Page 121, line 3: (3.11) \rightarrow (3.10)

Page 125, line 12: \( \nu(x) \cdot y \rightarrow \nu(x) \cdot (y - x) \)

Page 133, Exercise 1: The asserted formula for \( u(x) \) should be multiplied by \( R^{n-1} \) (including the case \( n = 2 \)).

Page 134, Exercise 2: The integrand of the second integral should be \( f(y)N(y) \).

Page 150, lines 1 and 2: \( k_\psi \rightarrow \kappa_\psi \)

Page 157, line 4: \( 3H \rightarrow 2H \)

Page 173, formula (5.22): \( \frac{1}{1 \times \cdots \times (n-1)} \rightarrow \frac{2}{1 \times \cdots \times (n-1)} \) and \( \int_{|y|=1} \rightarrow \int_{|y|\leq 1} \)

Page 177, line 6: \( \partial_t \tilde{u}(\xi, t) \rightarrow \partial_t \tilde{u}(\xi, 0) \)

Page 181, 4th line before (5.32): if \rightarrow of

Page 182, Exercise 1: (4.19) and (4.20) \rightarrow (5.19) and (5.20)

Page 184, formula (5.33), first line: \( \partial_t u \rightarrow \partial_t^2 u \)

Page 192, line 9: if \rightarrow of

Page 200, lines 9 and 11: \( f_{k,j} \rightarrow \hat{f}_{k,j} \)

Page 203, line 8: \( (1 + t^2)^{s-1}/2 \rightarrow (1 + t^2)^{(s-1)/2} \)

Page 204, line 4: \( u \rightarrow f \)

Page 207, line 2: \( \|\phi\|_{s-x} \rightarrow \|\phi\|_{s+x} \)

Page 208, line 6: There should be no restriction on the support of \( g \) in this formula. However, let \( \phi \) be a function in \( C^\infty_c(\Theta^{-1}(\Omega'_1)) \) with \( \phi = 1 \) on \( \Theta^{-1}(\Omega'_0) \); then \( \int (f \circ \Theta)\overline{g} = \int (f \circ \Theta)\overline{\phi g}, \) so one can replace \( g \) by \( \phi g \) in the subsequent argument. Since the map \( g \mapsto \phi g \) is bounded on \( H_s \) for all \( s \), this yields the desired estimate in the end.

Page 210, formula (6.27): \( |\alpha| \leq k \rightarrow |\alpha| = k \)

Page 212, lines 9 and 10: \( |\alpha| \leq k \rightarrow |\alpha| = k \)

Page 216, line 2: \( Lu \rightarrow P(D)u \)
Page 218, line 2: \( (6.30) \rightarrow (6.33) \) and \( Lu \rightarrow P(D)u \)

Page 224, line 8: \( \int_N(r) \rightarrow \int_{N(r)} \)

Page 225, line 1: if \( \rightarrow \) of

Page 225, Theorem (6.47): \( S \rightarrow \partial \Omega \) (two places)

Page 226, Theorem (6.51), line 2: \( \partial^* u \rightarrow \partial^a f \)

Page 227, Proposition (6.52): (1) In the first sentence, add the hypothesis \(|\alpha| = k + 1\). (2) On both sides of the displayed inequality, the norm \( \| \cdot \|_{k,N(r)} \) should be \( \| \cdot \|_{0,N(r)} \).

Page 227, proof of Proposition (6.52): (6.21) \( \rightarrow \) (6.20)

Page 227, Exercise 1: \( \Omega \) should be \( \{ r e^{i\theta} : -\pi < \theta < \pi, \frac{1}{2} < r < 1 \} \).

Page 229, proof of Proposition (7.1), line 7: \( P_{\xi'}(x) \rightarrow P_{\xi'}(z) \)

Page 231, display before (7.3): \( \partial^\alpha u \rightarrow \partial^\beta u \)

Page 233, line -1: \( \alpha_n \leq j + 1 \) \( \rightarrow \) \( \alpha_n \geq j + 1 \)

Page 235, line -6: \( (5.6) \rightarrow (7.6) \)

Page 237, line 7: \( \text{distribution} \rightarrow \text{distribution} \)

Page 239, line 9 of proof: \( |\alpha| - m + j \) \( \rightarrow \) \( m - |\alpha| + j \)

Page 240, line 2: \( \phi = 1 \) on \( \text{sing supp} u \) \( \rightarrow \) \( \phi = 1 \) on a neighborhood of \( \text{sing supp} u \)

Page 241, Proposition 8.11(a): the set \( \Omega - \Omega = \{ x - y : x, y \in \Omega \} \rightarrow \text{the set } \Omega \)

Page 241, proof of Prop. 8.11, line 3: \( \Omega - \Omega \rightarrow -\Omega + x \) (2 places)

Page 245, proof of Prop. 8.11: Replace the material beginning with “Moreover” by the following: Moreover, if \( \Omega \) is dense, then so is \( -\Omega + x \). Thus, for each \( x \in \Omega \), \( p_2^\vee(x,\cdot) \) vanishes on a dense set and so vanishes identically; hence so does \( p(x,\cdot) \). On the other hand, if \( \Omega \) is not dense, we can take \( p(x,\xi) = \psi(x)e^{-2\pi i x \cdot \xi} \widehat{\phi}(-\xi) \) where \( \psi \in C_c^\infty(\Omega) \) and \( \phi \in C_c^\infty(\mathbb{R}^n \setminus \Omega) \), for then \( p_2^\vee(x,z) = \psi(x)\phi(x-z) \) and hence \( p_2^\vee(x,x-y) = \psi(x)\phi(y) = 0 \) for \( x,y \in \Omega \).

Page 247, line 4: \( D^\alpha \delta(x - y) \rightarrow D_x^\alpha \delta(x - y) \)

Page 248, line -7: \( D^\beta_\xi \rightarrow D^\alpha_\xi \)

Page 250, (8.24): \( \Sigma_a \) should be the closure of the set on the right side.

Page 251, line 9: \( d\eta \rightarrow dy \)

Page 252, next-to-last line of proof of Corollary (8.32): \( \Psi^{-\infty} \rightarrow S^{-\infty} \)

Page 253, line 3 of proof: \( u(x)v(y) \rightarrow u(y)v(x) \)

Page 256, line 4: then then \( \rightarrow \) then

Page 258, line 3: and and \( \rightarrow \) and

Page 259, Huygens phenomenon and Huygens principle: 167 \( \rightarrow \) 172