ERRATA TO "REAL ANALYSIS," 2nd edition

(6th and later printings)

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

Page 7, line 12: $Y \cup \{y_0\} \quad \to \quad B \cup \{y_0\}$

Page 7, line -12: $X \in \quad \to \quad x \in$

Page 8, next-to-last line of proof of Proposition 0.10: $E \quad \to \quad X$

Page 12, line 17: $a \in \mathbb{R} \quad \to \quad x \in \mathbb{R}$ (two places)

Page 14, line 16: $x \in X \quad \to \quad x \in X_1$

Page 14, line 17: whenver $\to$ whenever

Page 22, line 2: susbset $\to$ subset

Page 24, Exercise 1, line 1: A family $\to$ A nonempty family

Page 24, Exercise 3a: disjoint $\to$ disjoint nonempty

Page 34, line 1: $\bigcup_1^n J_j \quad \to \quad \bigcup_1^m J_j$

Page 35, line -3: open h-intervals $\to$ open intervals

Page 37, line -1: countable $\to$ countable set.

Page 38, line -4: $\sum_0^\infty \quad \to \quad \sum_1^\infty$

Page 40, line 2 of §1.6: 2.7 $\to$ 2.8

Page 45, line 5: $[\infty, \infty] \quad \to \quad [-\infty, \infty]$

Page 45, line 8: 2.3 $\to$ 1.2

Page 49, line -8: inegrals $\to$ integrals

Page 56, last line of proof of Theorem 2.27: $(x, t) \quad \to \quad (x, t_0)$

Page 60, Exercise 27c: $\log(b/a) \quad \to \quad \log(a/b)$

Page 60, Exercise 31e: $s^2 \quad \to \quad a^2$

Page 61, line 9: repectively $\to$ respectively

Page 66, line -4: $\bigcap_1^\infty E_n \quad \to \quad E = \bigcap_1^\infty E_n$

Page 67, next-to-last line of Theorem 2.37: $\int f^y \, d\nu \quad \to \quad \int f^y \, d\mu$.

Page 69, Exercise 49a: $\mathcal{M} \times \mathcal{N} \quad \to \quad \mathcal{M} \otimes \mathcal{N}$

Page 69, Exercise 50: Either assume $f < \infty$ everywhere or use the condition $y < f(x)$ to define G_f. Also, $\mathcal{M} \times \mathcal{B}_{\mathbb{R}} \quad \to \quad \mathcal{M} \otimes \mathcal{B}_{\mathbb{R}}$.

Page 70, proof of Theorem 2.40, line 2: rectangles $\to$ rectangles, which may be assumed bounded,

Page 72, line 5: definitons $\to$ definitions

Page 75, line 9: $\sum_j (x_j - a_j)(\partial g/\partial x_j)(y) \quad\to\quad \sum_k (x_k - a_k)(\partial g_j/\partial x_k)(y)$

Page 75, line 9: joning $\quad\to\quad$ joining

Page 76, line 6: $\bigcup_1^\infty U_j \quad\to\quad \bigcap_1^\infty U_j$

Page 76, line -7: $f\circ G \quad\to\quad f\circ G|\det DG|$

Page 76, line -5: $G(\Omega)) \quad\to\quad G(\Omega)$

Page 87, line 3: $\nu(A_j) > \sum \quad\to\quad \nu(A_j) \geq \sum$

Page 88, Exercise 6: $\int f\,d\mu \quad\to\quad \int_E f\,d\mu$

Page 90, line -6: $f \quad\to\quad f_j$

Page 102: (3.24) should be interpreted as "$T_F(b) = T_F(a) + \sup\{\ldots\}$" in the case $T_F(b) = T_F(a) = \infty$.

Page 104, line 7 of proof of Lemma 3.28: $x_0 < \cdots \quad\to\quad x = x_0 < \cdots$

Page 104, line -12: $\sum_1^n \quad\to\quad \sum_1^m$

Page 105, line 5 of proof of Proposition 3.32: $\mu(U_j) < \delta \quad\to\quad m(U_j) < \delta$

Page 105, proof of Proposition 3.32: The displayed inequalities are valid provided F is monotone, which may be assumed without loss of generality.

Page 106, line 4: greatest integer less than $\delta^{-1}(b-a)+1 \quad\to\quad$ smallest integer greater than $\delta^{-1}(b-a)$

Page 107, Exercise 28b: $\mu_{T_F(E)} \quad\to\quad \mu_{T_F}(E)$

Page 115, line -12: Propostiion $\quad\to\quad$ Proposition

Page 159, next-to-last line of proof of Theorem 5.8: Moroever $\quad\to\quad$ Moreover

Page 165, line 6: $x\in X \quad\to\quad x \in \mathcal{X}$

Page 166, line -2 of proof of Theorem 5.14: $(1-t)x + (1-t)z \quad\to\quad (1-t)x - (1-t)z$

Page 166, line -1: $U_{x\alpha_j\epsilon_j} \quad\to\quad U_{0\alpha_j\epsilon_j}$

Page 167, line 3: $p_{\alpha_j}(y) < \epsilon \quad\to\quad p_{\alpha_j}(y) \leq \epsilon$

Page 167, bulleted item at bottom (continuing to next page): $\mathbb{C}^X$ should be replaced by the space of locally bounded functions on X, i.e., the space of all complex-valued functions f on X such that $p_K(f) < \infty$ for all K.

Page 174, line 2: paralellogram $\quad\to\quad$ parallelogram

Page 174, lines -8 and -4: $\mathcal{X} \quad\to\quad \mathcal{H}$

Page 177, line 1: $e_\alpha \quad\to\quad u_\alpha$ and $\mathcal{X} \quad\to\quad \mathcal{H}$

Page 179, next-to-last line of notes for §5.1: coincides with $\quad\to\quad$ extends

Page 197, line -2: on $(0,\infty)$, $\quad\to\quad$ on $[0,\infty)$ such that $\phi(0)=0$,

Page 208, Exercise 41: For the case $p=\infty$, assume μ semifinite.

Page 208, Exercise 45, lines 3 and 4: T is weak type $(1, n\alpha^{-1})$ and strong type (p,r) where $1 < p < n(n-\alpha)^{-1}$ and $r^{-1} = p^{-1} - (n-\alpha)n^{-1}$.

Page 210, final sentence: Theorem 6.36 was discovered independently, a little earlier than [51], by D. R. Adams (A trace inequality for generalized potentials, *Studia Math.* **48** (1973), 99–105).

Page 217, lines 7 and 8: $f \quad \to \quad f_1$

Page 218, line −5: $\chi_u \quad \to \quad \chi_U$

Page 224, line 8: Insert minus signs before the two middle integrals.

Page 224, line −4 of proof of Proposition 7.19: $(-\infty, N] \quad \to \quad (-\infty, -N]$

Page 224, Exercise 18, line 1: $\mathcal{M}(X) \quad \to \quad M(X)$

Page 225, Exercise 24b: $\int f\,d\mu \quad \to \quad 0$

Page 225, Exercise 24c: $F(x) \quad \to \quad 0$

Page 226, line 2 of Proposition 7.21: $X \otimes Y \quad \to \quad X \times Y$

Page 229, line −10: $\mathcal{B}_X \times \mathcal{B}_Y \quad \to \quad \mathcal{B}_X \otimes \mathcal{B}_Y$

Page 242, line 12: $\|g\|_{(N+n+1,\alpha)} \quad \to \quad \|g\|_{(N+n+1,0)}$

Page 246, Exercise 9: Assume $p < \infty$.

Page 247, line 2 of Theorem 8.19: $\mathbf{T}^n \quad \to \quad \mathbb{Z}^n$

Page 250, line −2: $\sum_{|\gamma|\le|\beta|} \|f\|_{(N+n+1,\gamma)} \quad \to \quad \sum_{|\gamma|\le N} \|f\|_{(|\beta|+n+1,\gamma)}$

Page 251, line 4: $-2\pi a e^{-\pi a x^2} \quad \to \quad -2\pi a x e^{-\pi a x^2}$

Page 254, line 5: $\mathbb{Z}^N \quad \to \quad \mathbb{Z}^n$

Page 254, line 4 of proof of Theorem 8.32: 8.35 $\quad \to \quad$ 8.31

Page 256, line 1: right $\quad \to \quad$ left

Page 259, line 9: $f_2 * \phi_t(\xi) \quad \to \quad f_2 * \phi_t(x)$

Page 261, line 7: $e^{-2\pi i\kappa x} \quad \to \quad e^{2\pi i\kappa x}$

Page 264, line 4: $e^{2\pi(2m+1)x} \quad \to \quad e^{2\pi i(2m+1)x}$

Page 268, formula (8.46): $\frac{1}{2} - x - [x] \quad \to \quad \frac{1}{2} - x + [x]$

Page 269, line 6: $S_m(a_j) \quad \to \quad S_m f(a_j)$

Page 273, line 7: if for all $\quad \to \quad$ for all

Page 274, line −1: $(t^2+|x|^2)^{-(n+1)/2} \quad \to \quad (t^2+|x|^2)^{(n+1)/2}$

Page 276, Exercise 43: $e^{-|x|/2} \quad \to \quad \frac{1}{2}e^{-|x|}$

Page 286, line 3: $\phi(y) \quad \to \quad \phi(x)$

Page 286, lines −13 and −5, and page 287, lines 1 and 3: $U \quad \to \quad V$

Page 288, line −10: $\psi(\epsilon x) \quad \to \quad \psi(x/\epsilon)$

Page 289, Exercise 7, line 2: f agrees $\quad \to \quad$ there exists a constant c such that $f + c$ agrees

Page 291, Exercise 13: $f * \psi_t \quad \to \quad F * \psi_t$

Page 293, line −2: $(1+|x|)^N \quad \to \quad (1+|x|)^{-N}$

Page 296, line −9: $x_j \quad \to \quad \xi_j$

Page 297, line 7: One $\quad \to \quad$ On

Page 300, Exercise 28, line 2: $|\xi|^{\alpha-2} \quad \to \quad |x|^{\alpha-2}$

Page 303, line 7: $(1+|\xi|^2)^s \quad \to \quad (1+|\xi|^2)^{-s}$

Page 320, line -1: the the $\rightarrow$ the

Page 325, Exercise 17, line 2: smaple $\rightarrow$ sample

Page 325, Exercise 17, line 9: $X_j - M_j \rightarrow X_j - M_n$

Page 325, line 3 of §10.3: $e^{(t-\mu)^2/2\sigma^2} \rightarrow e^{-(t-\mu)^2/2\sigma^2}$

Page 326, line -6: $X_n \rightarrow X_j$

Page 331, line -7: $\exp(\cdots) \rightarrow \exp(-\cdots)$

Page 332, formula (10.23): $\exp(\cdots) \rightarrow \exp(-\cdots)$

Page 341, proof of Proposition 11.3, line 3: it $\rightarrow$ if

Page 344, proof of Theorem 11.9, end of line 2: Delete "$h \in C_c^+$ and".

Page 349, line 3: $\mu^*(A) \cup \mu^*(B) \rightarrow \mu^*(A) + \mu^*(B)$

Page 349, line -11: $B^{2k-3} \rightarrow B_{2k-3}$

Page 358, line 10: $C_(X) \rightarrow C(X)$

Page 358, line -7: $x_{i_1 \cdots x_k} \rightarrow x_{i_1 \cdots i_k}$

Page 373, reference 131: of $\rightarrow$ in

Page 373, reference 139: *in* $\rightarrow$ *on*

Page 378, line -2: $CS' \rightarrow \mathcal{S}'$