Errata

p. 2, 4dn: Change $\sum_{I \in \mathcal{I}}$ to $\sum_{I \in \mathcal{C}}$.
p. 4, 2dn in footnote: Should be “about to be shown”
p. 6, 10dn: Change $\mathcal{C}$ to $\mathcal{C}'$
p. 6, 3up: Change to $8\text{Ncard}(\mathcal{C})$
p. 36, 18dn: Exercise 2.1.17 should be attempted after Exercise 2.1.19
p. 38, 5dn: Change second $\lim_{n \to \infty} B_n$ to $\lim_{n \to \infty} B_n$.
p. 57, 3up–1up: When doing the last part of Exercise 3.2.30, assume that $N' \geq N$.
p. 60, 10dn: Change $[0, F(\infty))$ to $[0, F(\infty)]$
p. 60, 12dn: Change $F(y) \geq F(x)$ to $F(y) \geq x$.
p. 60, 13up: Change $F(b_n)$ to $F(b_n -)$
p. 63, 23dn: Change $\frac{2}{\pi} |\arctan(y) - \arctan(x)|$ to $\frac{2}{\pi} |\arctan(\beta) - \arctan(\alpha)|$
p. 69, 1up: Change $-\int_{E^-} (f + g) \, d\mu$ to $+\int_{E^-} (f + g) \, d\mu$
p. 71, 4up: Change “≤” to “≥” and ≥ to ≤ in this line.
p. 77, Lemma 3.3.1: The initial assertion is false as stated. Rather than assuming that $F$ is a general topological space, assume it is a metric space. Next, for a given open $G$, take $D_k$ to be the set of $y \in G$ that are a distance at least $\frac{1}{k}$ from $G^C$. Finally, replace the display in the third line of the proof by
\[
\{x : f(x) \in G\} = \bigcup_{k=1}^{\infty} \bigcap_{m=1}^{\infty} \bigcap_{n=m}^{\infty} \{x : f_n(x) \in D_k\} \in \mathcal{B}.
\]
p. 79, 4dn: Change (3.3.13) to (3.2.8).
p. 90, 3up: Change Lemma 3.2.13 to Theorem 3.2.10.
p. 100 & 101: Insert into the definition of an $\mathcal{L}$-system the condition (c') If $f, g \in \mathcal{K}$ and $g - f \in \mathcal{L}$, then $g - f \in \mathcal{K}$ and in line 2dn on p. 101 change (c) to (c')
p. 115, 13up: Change (5.1.3) to (5.1.5)
p. 128, 7dn: Change to “non-empty, connected, open set”
p. 134, 7up: Change $\mathbb{R}^N \times (-1,1)$ to $(\mathbb{R}^N \setminus \{0\}) \times (-1,1)$
Errata

p. 134, 8dn: Change $\lambda_{(0,1)}$ to $\lambda_{(-1,1)}$.

p. 145, 4dn: Change to $\int_0^1 f(z(t)) \frac{dt}{\mu(t)-\kappa}$

p. 145, 13dn: Change to $C^2_b(\mathbb{R}^2; \mathbb{C})$

p. 155, 2up: Change $f_1^{p-1}$ for $f_1^{p-1} n$.

pp. 158, 1 & 6dn: Change “dominates” to “is dominated by”

pp. 168, 1, & 2, 9dn: Change $C_1(\lambda_\mathbb{R}^N; \mathbb{R})$ to $C_1(\mathbb{R}^N; \mathbb{R})$, $L^{p'}(\lambda_\mathbb{R}^N; \mathbb{R})$ to $L^{p'}(\mathbb{R}^N; \mathbb{R})$, $\tau_{st\omega}$ to $\tau_{st\epsilon}$.

pp. 184–185: $\{e_n : n \in \mathbb{N}\}$ should be replaced by $\{e_n : n \in \mathbb{Z}\}$ in line 4 up on p. 184 and lines 10 down, 15 down, 19 down, and 10 up on p. 185.

p. 185, 8 & 10dn: Replace $L^2(S^1; \mathbb{C})$ by $L^2(\lambda_{S^1}; \mathbb{C})$.

p. 185, 2 & 17dn: Replace $\{(2\pi)^{-\frac{1}{2}} z^n : n \in \mathbb{N}\}$ by $\{(2\pi)^{-\frac{1}{2}} z^n : n \in \mathbb{Z}\}$ in line 2 down and $\sum_{n \in \mathbb{N}}$ by $\sum_{n \in \mathbb{Z}}$ in lines 17 down.

p. 185, 1up: Replace $\sum_{n \in \mathbb{N}} (e_n, e_0)_{L^2(\lambda_{[0,1]}; \mathbb{C})}$ by $\sum_{n \in \mathbb{Z}} r^{n}(e_n, e_0)_{L^2(\lambda_{[0,1]}; \mathbb{C})}$

p. 186, 3dn: Replace $|f(x) - f(y)|$ by $|f(x) - f(y)|$.

p. 188, 1up: Right hand side of equation should be

$$\sum_{k=0}^{\ell} \frac{(-1)^k b_{\ell-k}}{k!}$$

p. 198–199: In line 5dn on 198 and lines 8up & 7up on 199, change $2\pi(2\|n\| + 1)$ to $2\pi(2\|n\| + N)$.

p. 203, 10up: Change $\mu \ll \mu$ or $\mu \ll \nu$.

p. 204, 14up: Change $[0,1]$ for $[0,1]$.

p. 206, 3up: Change $\kappa \equiv \{\mu(A)\}$ to $\kappa \equiv \sup\{\mu(A)\}$.

p. 214, 12 & 11up: Replace these lines with: Thus we have completed the proof of (**) and therefore the desired equalities.

p. 214, 5up: Change to: Thus, since $\nu(E) = \mu_1(E)$, Theorem 2.1.13 says that ....

p. 222, 11up: Replace second = by $\geq$ in this line.