Errata

This list of errata is maintained by the author. Contributions are welcome. If you notice additional instances that are incorrect, misleading, or poorly explained, please notify the author at `dana@math.dartmouth.edu`.

This page was last updated on November 12, 2023 at 10:21.

Page 11, lines 21 & 22: "β_V" should be "η_V".

Page 12, line 10: Replace "$U = r^{-1}(U)$" by "$U = r^{-1}(U) \cap V$".

Page 16, line 6: Replace "completion and" by "completion".

Page 17, line 2: Replace "$\gamma^{-1)}$" with "γ^{-1}".

Page 17, line −3: Replace "$|f(\gamma\eta^{-1}|$" with "$|f(\gamma\eta^{-1})|$".

Page 19, line 7: Replace ", ," with ",".

Page 19, line −6: "$(\|\varphi\|_\infty \cdot 1 - |\varphi|^2)$" should be "$(\|\varphi\|^2_\infty \cdot 1 - |\varphi|^2)$".

Page 19, line −3: "$\|\varphi\|^2$" should be "$\|\varphi\|^2_\infty$".

Page 20 line 16: Replace "that is hard" with "that it is hard".

Page 29, Definition 2.1: Replace "a map" with "a surjection".

Page 33, Definition 2.19: Replace "if and" with "if".

Page 35, Corollary 2.26: The hypothesis that G act freely was omitted.

Page 37, Ex 2.1.10: G must have an open range map for the implication that $\pi(G)$ closed implies $G\backslash G^{(0)}$ is Hausdorff.

Page 37, Ex 2.1.18: The result is correct but the proof needs to altered. See below for page 360.

Page 45, line −10: Replace "continuous open map" with "continuous open surjection".

Page 47, line 14: Replace "$w = y \cdot \eta$" with "$z = y \cdot \eta$".

Page 47, line −13: "$w = h \cdot \beta$" should be "$w = y \cdot \beta$".

Page 48, Corollary 2.50: Replace "If the range map on H is open" with "If the range maps on H and G are both open".

Page 49, line 13: Replace "continuous map" with "continuous surjection".

Page 57, line −7: The displayed equation should be

$$\sigma^u_Z(\varphi) = \int_H \varphi(z \cdot \eta)\, d\beta^{s(z)}(\eta) \quad \text{for } \varphi \in C_c(Z).$$

Page 58-9, Theorem 2.69: Replace "$\kappa|_{G^{(0)}}$" and "$\kappa|_{G^{(0)}}$" by "$\kappa|_G$" and $\kappa|_H$", respectively. Here if $u \in G^{(0)}$, then $(\kappa|_G)^u$ is meant to be the restriction of κ^u to the open subset G^u of L^u.

Page 60, Theorems 2.70 and 2.71: Replace "(2.7), and (2.8)" by "(2.8), and (2.9)".

Page 75, Proposition 3.14: In part (a), replace "$\dot\beta(\varphi)$" with "$\dot\beta(\varphi)(G \cdot x)$".

Page 75, Proposition 3.16: In part (b), replace "$s : Z \to G^{(0)}$" by "$s : Z \to H^{(0)}$".

Page 80, line 1: "$\mu_i \ll \mu$" should be "$\mu_i \ll \mu_0$".

Page 81, line −13: "$p(H)$" should be "$p_0(H)$". This error is repeated multiple times.

Page 81, line −19: "$G^{(0)} \times H \times G$" should be "$G^{(0)} \times \Sigma_0 \times G$".

Page 82, lines 11, 15, and −14: "$p(H)$" should be "$p_0(H)$".

Page 99, Theorem 4.9: Replace "$\|F\|_{C_r^*(G)} = \|f\|_{C_r^*(G)}$" with "$\|F\|_{C^*(G)} = \|f\|_{C^*(G)}$" .

Page 113, Ex 5.2.2: The assertion is correct, but the "solution" contains a flaw. See the errata for page 372.

Page 120, Line −15: Replace "$V(f)$" by "$L(f)$".

Page 114, line 15: Replace "$\gamma_i \to s(\gamma)$" by "$\gamma_i \to \gamma$".

Page 115, Eq (5.9): Replace "$\lambda^{r(z)}$" by "$\lambda^{r(\zeta)}$" .

Page 116, Eq (5.13): Replace "I_k" by "J_k".

Page 178, line 14: Replace the sentence "Since ν is regular, we may as well assume that A is a G_δ-set." With "Since ν is regular, $\nu(A)$ is null if and only if every compact subset of A is null. Since $\gamma \mapsto \gamma^{-1}$ is a homeomorphism, we can assume that A is a compact null set." (See also the comments to Lemma 8.22 on page 180 below.)

Page 178, line 19: Replace "monotone convergence theorem" with "Dominated Convergence Theorem".

Page 180, Proof of Lemma 8.22: The proof must be adjusted since the characteristic function $\mathbb{1}_M$ of a precompact Borel set is in $\mathcal{B}_c^1(G)$ if and only if M is both a G_δ-set and a F_σ-set. A similar restruction applies to $\mathbb{1}_N$ and $\mathcal{B}_c^1(G^{(0)})$. However, since ν and $L_{a,b}$ are both Radon measures, regularity allows us to assume that M is compact. Then $f = \mathbb{1}_M \in \mathcal{B}_c^1(G)$ as claimed. Note that Equation (8.18) holds with $\mathbb{1}_N$ replaced by $\mathbb{1}_U$ for any $U \supset N$. Since N we can assume N is G_δ, there are precompact open sets U_n such that $U_{n+1} \subset U_n$ and $N = \bigcap_n U_n$. Since $\mathbb{1}_{U_n} \in \mathcal{B}_c^1(G^{(0)})$, we have

$$L_{[g\otimes h, d\otimes k]}(f) = \big(M(\mathbb{1}_{U_n}) L_b(f)[g \otimes h] \mid [d \otimes k]\big) \quad \text{for all } n \geq 1.$$

But it is not hard to see that the Dominated Convergence Theorem implies that $M(\mathbb{1}_{U_n}) \to M(\mathbb{1}_N)$ in the weak operator topology. This allows us to conclude that

$$L_{[g\otimes h, d\otimes k]}(f) = \big(M(\mathbb{1}_N) L_b(f)[g \otimes h] \mid [d \otimes k]\big).$$

Now the proof concludes as before.

Page 189, Definition 9.3(b): "$x \mapsto f_i * f_i^*(\gamma)$" should be "$\gamma \mapsto f_i * f_i^*(\gamma)$".

Page 190, item (b)′: "$x \mapsto g_i * g_i^*(\gamma)$" should be "$\gamma \mapsto g_i * g_i^*(\gamma)$".

Page 190, Lemma 9.5: For consistency, the variable x should be replaced with γ.

Page 298, Definition 11.18: It should have been remarked that if G is discretely trivial at v, then $G(v)$ itself is trivial; that is, $G(v) = \{v\}$. This is implied by the definition by letting K be any nonempty compact subset of $G(v) \setminus \{v\}$.

Page 301, line −11: Replace "maps" with "map".

Page 309, line −2: Replace "$\ker R$" with "$\ker \underline{R}$".

Page 303, lines 3, 6, and −1: Replace "R" with "$\underline{R}$".

Page 360, Ex 2.1.18: The proof of (c)$\Longrightarrow$(a) assumes the action is free. This is not necessary. Replace the last sentence with the following: "Since

$(y, x) \in R(G, X)$, $y = \gamma \cdot x$ for some $\gamma \in G$. Since the source map is open, we can pass to a subnet, relabel, and assume that there are $\eta_i \to \gamma^{-1}$ with $s(\eta_i) = r(\gamma_i)$. Then $\eta_i\gamma_i \cdot x_i \to x$. Since the X is Cartan, we can pass to a subnet and assume $\eta_i\gamma_i \to \eta$. But then $\gamma_i \to \gamma\eta$.

Page 363, line 7 of Ex 2.3.8: Replace "converging to $s(z)$" with "converging to w".

Page 372, Ex 5.2.2: Replace the first sentence of the "solution" by "If $U \cap F \neq \emptyset$, there is a $\varphi \in C_c(G^{(0)})$ such that φ vanishes off U and is not identically zero on F."