Errata and Addenda in "The Structure of Compact Groups" 3rd Edition of 2013

Version of December 31, 2017

page xx	Line 7 from below: Replace "Degree" by "Rank".
page 23	Lines 6,7 of Exercise E1.12 read: "... respectively, if it is mapped into itself by all (continuous!) endomorphisms."
page 29	Line 4 below Table 1.2 read: "For $\mathbb{Z}_p$ and $\mathbb{Z}(p^\infty)$, see Example 1.38(i)."
page 29	Line 5 below Table 1.2 read: "For $\mathbb{T}_p$ and $\frac{1}{p^\infty}\mathbb{Z}$, see Example 1.38(ii)."
page 75	Line 3: Delete "$X_{\rm fix}$".
page 132	Line 6 above Theorem 5.27: Replace "$r\mathfrak{s}.x = \ldots$" by "$r\cdot x = \ldots$" .
page 163	Line 2 from below read: "$j = 1, \ldots, n$, form a basis" [insert comma].
page 164	Line 4: Replace "X_1" by "X_1'" and "X_n" by "X_n'"
page 164	Line 1 below displayformula $(*)$: Replace "$]-\epsilon_0, \epsilon[$" by "$]\epsilon_0, \epsilon_0\,[^n$".
page 167	Line 8: Replace "U_g" by "U_h".
page 167	Lines 7 from below to last line: Replace these lines by the following text:

$f(\exp r_j{\cdot}X_j){\in}W_H$. Define a group homomorphism $\tau{:}\,\mathbb{R}{\to}H$ by $\tau(r){=}f(\exp r{\cdot}X_j)$. If τ is constant, set $r_j = \frac{1}{2}$. In that case $f(\exp r_j{\cdot}X_j) = 1 \in W_H$. Now assume that τ is nondegenerate. Then the subset $\tau(]0,1])$ of the compact space H is infinite and therefore has an accumulation point h. Let V be an identity neighborhood of H such that $VV^{-1} \subseteq W_H$. Find two real numbers s and t such that $0 < s < t \leq 1$, that $\tau(s) \neq \tau(t)$, and that $\tau(s), \tau(t) \in Vh$. We set $r_j = t - s$. Then $0 < r_j \leq 1$ and $f(\exp r_j{\cdot}X_j) = \tau(r_j) = \tau(t)\tau(s)^{-1} \in Vhh^{-1}V^{-1} = VV^{-1} \subseteq W_H$. Thus r_j satisfies our requirements. □

page 180	Line 1 from below: Replace "F is a..." by "Z is a...".

page 199	Theorem 6.10: The text of the statement of Theorem 6.10 should be typeset in italics.
page 211	Line 15: replace "$N(G,T)$" by "$N(T,G)$".
page 220	Line 8 from below: replace "Z" by "H".
page 221	Line 19: replace "Z_0" by "H".
page 221	Line 20: replace "G'" by "N" and read "cofactor of N and..."
page 237	Line 4 from below: Replace "Theorem 6.47" by "Proposition 6.47"
page 255	Lines 8, 9: delete "$\mathrm{Out}(\mathfrak{g}) \cong \mathrm{O}(3)/\mathrm{SO}(3) \cong \mathbb{Z}(2)$."
page 273	Line 8 from below: delete "$= \mathrm{O}(3)$"
page 273	Line 5 from below: replace "with O(3)" by "with SO(3)"
page 273	Line 4 from below: Replace "diag$(\pm 1, \pm 1, \pm 1)$" by "diag$(\pm 1, \pm 1, \pm 1)$ of determinant 1".
page 273	Line 3 from below: replace "diag$(\pm 1, 1, 1)$" by "diag$(1,1,1)$, diag$(-1,-1,1)$".
page 383	Line 9: replace "set X" by "set $X \neq \emptyset$".
page 383	Line 11: replace "is a compact" by "is a nonsingleton compact".
page 388	Line 16: replace "$\dim_{\mathcal{Q}}$" by "$\dim_{\mathbb{Q}}$".
page 446	Line 2 of the proof of Lemma 8.89: replace "S8.2" by "8.87".
page 448	Lines 13, 14 read: Thus Theorem 8:30 and Proposition 8.97 motivate us to formulate the following statement:
page 448	Line 17: Replace "By Propositions 8.97 and 8.98" by "By Theorem 8.30 and Proposition 8.97"
page 449	Line 6 from below: Remove period between "set" and "and".
page 449	Line 5 from below: Remove period between "l" and "d".
page 450	Line 3: Replace "G" by "$\widehat{G}$".

page 449 — Line 6: Replace the entire line by:
"Therefore $\mathfrak{L}(G)/\mathfrak{K}(G) \cong G_a$ where $\mathfrak{K}(G) = \ker \exp \cong \pi_1(G)$, and this also provides"

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page 473 — Line 1 from below (and p. 474 line 1) read: "... i.e. each of them is mapped into itself by all continuous endomorphisms."

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page 477 — Lines 12, 15, 16 (counting headline): replace "$N(G,T)$" by "$N(T,G)$".

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page 506 — Line 13: replace "$\subseteq =$" by "$\subseteq$".

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page 532 — Line 3 of proposition 9.85 read: " the subgroup $\mathrm{Aut}(A)$ of $P(A)$ by the topology of $D(A)$." [Insert "by".]

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page 533 — Item (iv) of Theorem 9.86, line 1 read: $\left[\mathrm{Aut}\left(S_{|\mathfrak{s}|}\right)\right]_0 D_{\mathfrak{s}}$
[Delete (and).]

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page 533 — Item (iv) of Theorem 9.86, line 2 read: $\alpha \in \mathrm{Aut}\left(S_{|\mathfrak{s}|}\right)$ [Delete (.]

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page 536 — Line 3 of the proof of Theorem 9.90 read: "small closed normal subgroups $N \in \mathcal{N}(G)$. It follows that G must be a Lie group."

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page 536 — Line 4 from below read: "and this proves $N \in G$ which..." (delete isolated "s").

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page 568 — Line 9: Replace "(see 2.71)" by "(see 2.17)".

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page 568 — Line 11: Replace "sense of 6.77(ii)" by "sense of 10.29".

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page 575 — Line 4 of the proof of 10.41 read: "in particular for the case that $G/N \ldots$"

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page 600 — Line 12 from below read: $p(x)$ (not $\mathfrak{p}(x)$).

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page 600 — Line 6 from below read: $p \circ \widetilde{f} = f$ (not $p \circ F = f$).

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page 600 — Line 4 from below read: "Skljarenko" (not "Sklarjenk").

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page 652 — Line 3 (headline): Replace "Degree" by "Rank".

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page 654 — Line 5: Replace "degree" by "rank".

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page 654 — Line 8: Replace "A1.20" by "A1.21".

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page 658 — Line 8: Replace "degree" by "rank".

page 659	Line 7 from below: Replace “degree” by “rank”.
page 660	Line 13: Replace “degree” by “rank”.
page 661	Line 5: Replace “degree” by “rank”.
page 667	Lines 5, 18 after the headline “Postsscript”: Replace “degree” by “rank”.
page 688	Lines 11 and 10 from below: Replace “$\mathbb{N}_0^{\mathbb{N}}$” by “$\mathbb{N}_0^{(\mathbb{N})}$”.
page 688	Lines 1 from below: Replace “$p^N\mathbb{Z}$” by “$p^n\mathbb{Z}$”.
page 689	In the diagram replace the leftmost letter “Z” by “$\mathbb{Z}$”.
page 694	Item (ii) of Corollary A1.43 read: $\cdots \mathbb{R}/\mathbb{Z} \cong \mathbb{Q}^{(\mathfrak{c})} \oplus \cdots$ (replace “$=$” by “$\cong$”).
page 782	Line 3 from below through page 783, line 3: Replace bold face type by roman type.
page 782	Line 3 from below: Replace “SAS” by “$\mathcal{A}$”.
page 817	Line 13: Replace “3.19” by “A3.19”.
page 858	Line 5 von unten: Insert space between “of” and “X”.
page 864	Line 16 (counting headline) read: “compact” (not “coompact”).
page 878	Entry [219]: Delete one of two periods at the end of the line.
page 886	Second column after X^α: Insert entry X_{fix}, **74**.
page 900	Second column: Remove entry “generating degree”; in entry “generating rank” add “654, 658” after “**652**”.
page 909	Second column: delete line “O(3), **255**”.