§ 18. Appendix

The following changes should be made in the author's monograph 'Classical harmonic analysis and locally compact groups' (Oxford University Press, 1968).

P. ix (Reader's guide), footnote. REPLACE: des BY: de

P. 7, line 8 from below. REPLACE: τ_1' BY: $\hat{\tau}_1'$

P.16, line 13 from below. ADD AT THE END: , where w is subject to 6.1 (i)-(v)

P. 17, line 8. ADD AT THE END: , for the weight functions considered here.

P. 20, line 3. REPLACE: denoted cosp I BY: denoted by cosp I

P. 21, line 5. ADD: In the examples to be considered in this book, the underlying topological vector space of $\mathbf{A}(X)$ will, in fact, always be locally convex.

P. 29, § 4.8. A partial answer to the question raised here has been given by T.W. Körner, Proc. Cambridge Phil. Soc. 67 (1970), 559-568; see also the review in Zentralblatt f. Math. 194 (1970), 446.

P. 30, lines 8-10 from below. The proof as given applies only to the case where the underlying topological vector space of $\mathbf{A}(X)$ is locally convex, i.e.

$$\tfrac{1}{2}\mathcal{U}_0 + \tfrac{1}{2}\mathcal{U}_0 \subset \mathcal{U}_0 .$$

But the argument can easily be made perfectly general: we simply replace $\tfrac{1}{2}\mathcal{U}_0$ by a symmetric neighbourhood $\mathcal{U}_0'$ such that

$$\mathcal{U}_0' + \mathcal{U}_0' \subset \mathcal{U}_0 .$$

if $\mathcal{U}_0$ is any pre-assigned neighbourhood of 0 in $\mathbf{A}(X)$

P. 32, lines 10-16. Here the neighbourhood $\tfrac{1}{2}\mathcal{U}_0$ is used, which presupposes that $\mathcal{U}_0$ is convex (cf. the correction to p. 30). To make the reasoning valid in the general case, replace $\frac{1}{2}\mathcal{U}_0$ by $\mathcal{U}_0'$, where $\mathcal{U}_0'$ is so chosen that

$$\mathcal{U}_0' + \mathcal{U}_0' \subset \mathcal{U}_0',$$

and then replace $(2N)^{-1}\mathcal{U}_0$ by $\mathcal{U}_0''$, choosing $\mathcal{U}_0''$ so that

$$\mathcal{U}_0'' + \ldots + \mathcal{U}_0'' \quad \text{(N times)}$$

is contained in $\mathcal{U}_0'$. Likewise for lines 23 and 25.

P. 32, lines 5-9 from below. Cf. the preceding correction. In the general case the proof in the text should be modified as follows. Replace $\frac{1}{2}\mathcal{U}_0$ by $\mathcal{U}_0'$, where

$$\mathcal{U}_0' + \mathcal{U}_0' \subset \mathcal{U}_0.$$

Then replace $(\frac{1}{2})^2\mathcal{U}_0$ by $\mathcal{U}_0''$, where $\mathcal{U}_0''$ is so chosen that

$$\mathcal{U}_0'' + \mathcal{U}_0'' \subset \mathcal{U}_0'$$

and so on, by induction: $\mathcal{U}_0^{(n)}$ having been chosen, take $\mathcal{U}_0^{(n+1)}$ such that

$$\mathcal{U}_0^{(n+1)} + \mathcal{U}_0^{(n+1)} \subset \mathcal{U}_0^{(n)}$$

as replacement for $(\frac{1}{2})^{n+1}\mathcal{U}_0$ in the text. Then we have

$$\mathcal{U}_0' + \mathcal{U}_0'' + \ldots + \mathcal{U}_0^{(n)} \subset \mathcal{U}_0 \qquad (n = 1,2,\ldots);$$

in fact, even

$$\Sigma_{1\leqslant j\leqslant n} \mathcal{U}_0^{(j)} + \mathcal{U}_0^{(n)} \subset \mathcal{U}_0,$$

by induction. With this modification, the proof in the text applies to the general case.

P. 36, last line of the text. REPLACE: smooth manifold BY: smooth (n-1)-dimensional manifold

P. 40, line 10. REPLACE: $\nu = 2$ BY: $\nu = 1$

P. 40, line 12. REPLACE: $\mathcal{F}^1_{\frac{1}{2}}(\mathbb{R}^2)$ BY: $\mathcal{F}^1_{\frac{1}{2}}(\mathbb{R})$

P. 58, line 6 from below. REPLACE: $\leqslant$ BY: $=$

P. 61, line 7 from below. REPLACE: The function BY: The continuous function

P. 70, line 4 from below. REPLACE: $f(\dot{x})$ BY: $\dot{f}(\dot{x})$

P. 74, line 11. REPLACE: footnote), p. 76. BY: footnote, p. 76).

P. 77, line 2. REPLACE: $[\mu^* * f]^*$ BY: $[\mu^* * f^*]^*$

P. 81, lines 6-7 from below. The proof may also be concluded in the following way. Since $g \in L^1(G)$ is arbitrary, we may take g as approximate left unit for f, whence $\langle f, \phi \rangle = 0$. This method uses only the formula (6) in place of (7).

P. 91, line 4 from below. REPLACE: $(\lambda_n)_{>0}$ BY: $(\lambda_n)_{n\geqslant 0}$

P. 95, line 13. REPLACE: is a topological BY: is also topological

P. 120, line 9. REPLACE: [108] BY: [108, Theorem 2 and Corollary 2]

P. 120, line 14. An inductive construction has since been given: see E. Hewitt and K.A. Ross, Abstract harmonic analysis II (Springer-Verlag, 1970), pp. 429-431.

P. 122, line 3 from below. REPLACE: this is shown as in 4.4 (i) BY: compare 4.4 (i) and 5.4

P. 129, line 17. DELETE: , but this is contained in 2.4 below

P. 130, line 10 from below. REPLACE: , and BY: holds and

P. 131, § 2.8. A simple example of a Segal algebra which does not have the property in question has been given by J. Cigler, Nederl. Akad. Wetensch. Indag. Math. 31 (1969), 273-282, especially pp. 276-277.

P. 146, line 6. The words 'of bounded L^1_w-norm' are extraneous to the argument and may be deleted.

P. 146, line 18. REPLACE: [111, I, Theorem 3] BY: [111, I, Theorem 4]

P. 160, line 5 from below. Note that the mapping of G onto G_1 defined by $x \to g$ $(x = gh)$ is continuous by hypothesis, and it is readily seen to be open.

P. 160, line 12 from below. REPLACE: the first footnote BY: the references in the first footnote

P. 167, line 16. REPLACE: Chapter III BY: Chapter 3

P. 171, line 20. REPLACE: $|f_n| \leqslant g$ BY $|f_n(x)| \leqslant |g(x)|$ a.e.

P. 171, line 12 from below. REPLACE: Now $g = \Sigma_{n\geqslant 1}|g_n|$ is in $L^p(G)$ and $|g_n| \leqslant g$, $n \geqslant 1$ BY: Now $\Sigma_{n\geqslant 1}|g_n|$ converges in $L^p(G)$, hence $|g_n(x)| \leqslant$ $\leqslant g(x)$ a.e. $(n \geqslant 1)$ for suitable $g \in L^p(G)$

P. 176, line 6 from below. In the sum at the end of the line the sub-script y' should read y_j'.

P. 191, Reference 42. REPLACE: 461-2 BY: 431-2

P. 192, Reference 58. REPLACE: University of São Paulo BY: Sociedade de Matemática, São Paulo

P. 195, ADDITIONAL PUBLICATIONS:

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