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REMARK ON MY PAPER "GENERATORS OF MONOTHETIC GROUPS"

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Professor H. Niederreiter has kindly informed me that Theorem 3 of my paper, *Generators of monothetic groups* [**1**] is a reduplication of a result of Baayen and Helmberg, which appears as Corollary 5.1 in [**2**]. It is the purpose of this note to acknowledge this fact and also to make a further remark. My proof of the result is different from that of Baayen and Helmberg, but it is needlessly complicated. Baayen and Helmberg derive the result as a corollary of a theorem based upon their fundamental Lemma 1. As they point out, the result may also be proved more directly, again using Lemma 1. The remark to be made is that Baayen and Helmberg's proof of Lemma 1 may be replaced by a simpler one. We state the lemma below and indicate its proof.

LEMMA (Baayen and Helmberg [**2**]). *Let γ be a continuous surjective character of a monothetic* LCA *group G. Then if $y \in T$ has infinite order, there exists a generator x of G such that $\gamma(x) = y$.*

Proof. As Professor Niederreiter pointed out in his letter, it clearly suffices to prove the result when $G = (T_d)^\wedge$, the dual of the discrete circle. Now it is an easy consequence of the elementary theory of divisible groups that, if z and y are elements of T having infinite order, then there exists an automorphism f of T such that $f(z) = y$. Regarding f as a one-one character of T_d, setting $z = \gamma$, and identifying f as a generator x of $(T_d)^\wedge$, we have $\gamma(x) = y$, which completes the proof.

Professor Niederreiter has informed me that he has a similar proof, using Hamel bases, which will appear, with many related results, in a forthcoming book of which he and Professor L. Kuipers are coauthors.

REFERENCES

1. D. L. Armacost, *Generators of monothetic groups*, Can. J. Math. *23* (1971), 791–796.

2. P. C. Baayen and G. Helmberg, *On families of equi-uniformly distributed sequences in compact spaces*, Math. Ann. *161* (1965), 255–278.

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