

CORRIGENDUM TO
"CYCLIC VECTORS OF INDUCED REPRESENTATIONS"

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Professor R. Goodman has discovered an error in [1, p. 48, lines 9–11] on which our results [2] depend. Nevertheless the construction can be saved in the following way.

We say that a function ϕ on a group G is submultiplicative if $\phi(gh) \leq \phi(g)\phi(h)$ for all g, h in G . For a locally compact group G we define $E(G)$ to be the space of all continuous functions f such that

$$\sup\{f(g)\phi(g) : g \in G\} < \infty$$

for every continuous submultiplicative function ϕ . This endowed with a natural topology is a complete locally convex space and it is a *-sub-algebra of $L_1(G)$.

One can prove that if G is first countable, then $E(G)$ has a commutative approximate identity $\{e_n\}$, $n=1, 2, \dots$. On the other hand every measure μ on $\mathcal{K}(G)$ which defines an induced representation is a functional on $E(G)$. It is a matter of simple computation to show that the vector

$$\xi = \sum_{n=1}^{\infty} c_n e_n^* * e_n,$$

where $c_n > 0$ are such that the series is convergent in $E(G)$, defines a cyclic vector for every representation L_ν^u with $\mu \in E(G)'$.

The details will appear in *Studia Mathematica*.

REFERENCES

1. E. G. Effros and F. Hahn, *Locally compact transformation groups and C*-algebras*, Mem. Amer. Math. Soc. No. 75 (1967). MR 37 #2895.
2. A. Hulanicki and T. Pytlik, *Cyclic vectors of induced representations*, Proc. Amer. Math. Soc. 31 (1972), 633–634.

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