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STRICT TOPOLOGY ON PARACOMPACT LOCALLY COMPACT SPACES: CORRIGENDUM

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We have found some errors in our paper [1]. We shall use the notation and terminology of [1].

First the statement of Lemma 3 needs some changes. The corrected form is:

LEMMA 3. A subset $A \subset M_t(X, E')$ is equicontinuous if and only if there exists a $p \in P$ such that $A \subset M_{t,p}(X, E')$ and has the properties:

- (i) $\sup \{ |\mu|_p(X) : \mu \in A \} < \infty ;$
- (ii) given $\epsilon > 0$, there exists a compact $K \subset X$ such that $\sup \{ |\mu|_p(X \setminus K) : \mu \in A \} \le \epsilon$.

The proof given in [1] holds for this form.

In Lemma 4, it does not follow from the hypothesis that g_M is bounded. We change and restate the lemma.

LEMMA 4. Assume E to be normed, and put $F = C_b(X, E)$, $F' = M_t(X, E')$. Let A be a relatively countably compact subset of $(F', \sigma(F', F))$ and assume A to be equicontinuous on $(C_b(X, E), u)$. Then A is equicontinuous on (F, β_0) .

The proof given in [1, Lemma 4] holds in this case. Finally, Theorem 5 needs to be put in the following form:

THEOREM 5. If E is normed, then $(C_b(X, E), \beta_0)$ is Mackey; if, in addition, E is complete then $(C_b(X, E), \beta_0)$ is strongly Mackey.

Using the revised Lemma 4, the proof given in [1] holds when E is normed.

References

1. S. S. Khurana, Strict topology on paracompact locally compact spaces, Can. J. Math. 29 (1977), 216–219.

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