ERRATUM TO "THE NONSTANDARD THEORY OF
TOPOLOGICAL VECTOR SPACES"

BY

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The authors are indebted to Steven F. Bellenot for pointing out an error in the proof of Theorem 6.2 (i). (The $\sigma(F, E)$-continuity of $g$ on $U^0$ need not imply the $\sigma(F, E)$-continuity of $g$ on the span of $U^0$.)

The following is a brief sketch of a proof of Theorem 6.2 (i). By Theorem 16.8 of [2], for each $\theta$-neighborhood $U$ of 0, each finite subset $y_1, y_2, \ldots, y_n$ of $F$ and each $\epsilon > 0$, there exists $x \in E$ such that $|\langle x, y \rangle - \langle g, y \rangle| < \epsilon$ for all $y \in \text{span} \{y_1, \ldots, y_n\} + U^0$. In particular $\langle x, y_i \rangle = \langle g, y_i \rangle$ for $i = 1, 2, \ldots, n$. Hence there exists $p \in E^*$ such that $\langle p, g \rangle = \langle p, y \rangle$ for $q \in M_\theta$ and $\langle p, y \rangle = \langle g, y \rangle$ for $y \in F$. Then $p \in [M_\theta \cap \mu_{\sigma(F, E)}(0)] = ps_{\sigma(E)}(\mathbb{E})$, since $g$ is $\sigma(F, E)$-continuous on each $\theta$-equicontinuous subset of $F$, and so $p$ satisfies the required conditions.

REFERENCES


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