It should be noted that Lemma 1 is interesting, independent of strong Lie ideals, for it generalizes a result of [1]. This generalization can be stated as follows:

**Theorem 2.** Let $A$ be a simple ring of characteristic $\neq 2$, with either its center $Z = (0)$ or of dimension greater than 16 over its center, and with an involution defined on it; then if either $K$, $S$, $[K, K]$ or $[K, S]$ are finite dimensional, $A$ is finite dimensional.

**References**


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**TRIANGLE INEQUALITY IN $l$-GROUPS**

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In [1, p. 309] G. Birkhoff remarks that "In a commutative $l$-group, we can . . . prove the triangle inequality $|a+b| \leq |a| + |b|$, but this does not seem to hold in general." The purpose of this note is to show that in fact if

$$|a+b| \leq |a| + |b|$$

for all $a$ and $b$ in the additive $l$-group $G$, then $G$ is commutative.

**Proof.** It is sufficient to show that any two positive elements of $G$ are permutable [2, p. 234]. Suppose therefore that $x$ and $y$ are positive elements of $G$. Taking $a = -x$ and $b = -y$ in (1), we obtain $x+y \geq |x-y| = y+x$. Similarly $y+x \geq x+y$. Hence $x+y = y+x$. This completes the proof.

**References**


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