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STABILITY OF THE BARON—VOLKMANN FUNCTIONAL EQUATIONS

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Abstract. In this paper we prove the stability of the equations $\sup_{\lambda\in T} f(x+\lambda y) = f(x)+f(y)$ and $\inf_{\lambda\in T} f(x+\lambda y) = |f(x)-f(y)|$. Here, f is a real-valued function on V, where V is a complex vector space and $T = \{z \in \mathbb{C} : |z| = 1\}$. Each of these equations characterizes the absolute value of complex linear functionals.

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