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A FIXED POINT APPROACH TO THE STABILITY OF A GENERALIZED CAUCHY FUNCTIONAL EQUATION

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ABSTRACT. We investigate the following generalized Cauchy functional equation

$$f(\alpha x + \beta y) = \alpha f(x) + \beta f(y)$$

where $\alpha, \beta \in \mathbb{R} \setminus \{0\}$, and use a fixed point method to prove its generalized Hyers–Ulam–Rassias stability in Banach modules over a C^* -algebra.

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