

Skof, Fulvia

Local properties and approximation of operators. (Italian. English summary) Zbl 0599.39007
Rend. Sem. Mat. Fis. Milano 53, 113-129 (1983).

This paper is connected with the theory of functional equations in the meaning of J. Aczél and more exactly with their Hyers stability [cf. *D. H. Hyers*, *Proc. Nat. Acad. Sci. USA* 27, 222-224 (1941; [Zbl 0061.264](#))]. We state some results and problems concerning the local uniform approximation and the extension of an operator $f : D_f \subset \mathbb{R} \rightarrow X$ (X being a Banach space) for which the condition $\|f(x+y) - f(x) - f(y)\| < \delta$ holds only in a given subset of \mathbb{R}^2 for some $\delta > 0$. Similar problems are posed in relation to the condition $\|f(x+y) + f(x-y) - 2f(x) - 2f(y)\| < \delta$.

MSC:

39B52 Functional equations for functions with more general domains and/or ranges

Cited in **8** Reviews
Cited in **206** Documents

Keywords:

Hyers stability; local uniform approximation; Banach space

Full Text: [DOI](#)

References:

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