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Hyers-Ulam-Rassias stability of functional equations in mathematical analysis. (English)

Zbl 0980.39024

The Hadronic Press Mathematics Series. Palm Harbor, FL: Hadronic Press. ix, 256 p. (2001).

This monograph is devoted to the Ulam-Hyers-Rassias stability problems of functional equations in several variables. The idea of stability of functional equations comes from S. M. Ulam and nowadays very many mathematicians from all over the world work on these problems.

In the book the author considers stability problems in the Ulam-Hyers and Rassias sense for many important functional equations: Cauchy equations, Hosszú equation, Jensen equation and quadratic functional equation. Also so-called superstability problems for exponential and logarithmic functional equations are widely considered.

The reader may find in the monograph many very interesting results in this direction which are originally stated only in scientific papers published in various mathematical international journals. Also wide list of references concerning subject discussed is contained in the book.

Reviewer: [Stefan Czerwik \(Gliwice\)](#)

MSC:

39B82 Stability, separation, extension, and related topics for functional equations

39-02 Research exposition (monographs, survey articles) pertaining to difference and functional equations

Cited in **6** Reviews
Cited in **263** Documents

Keywords:

Ulam-Hyers-Rassias stability; monograph; functional equations in several variables; Cauchy equations; Hosszú equation; Jensen equation; quadratic functional equation; superstability; exponential and logarithmic functional equations