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Descrizione fisica	1 online resource (515 pages)
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Soggetti	Differential equations Differential equations, Partial Sequences (Mathematics) Approximation theory Topology Ordinary Differential Equations Partial Differential Equations Sequences, Series, Summability Approximations and Expansions
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Survey on Cauchy functional equation in lattice environments -- A purely fixed point approach to the Ulam-Hyers stability and hyperstability of a general functional equation -- Birkhoff–James orthogonality reversing property and its stability -- Optimal forward contract design for inventory: a value-of-waiting analysis -- Ulam-Hyers stability of functional equations in quasi-b-Banach spaces -- On stability of the functional equation of p-Wright affine functions in 2-Banach spaces -- On solutions and stability of a functional equation arising from a queueing system -- Approximation by cubic mappings -- Solutions and stability of some functional equations on semigroups -- Bi-additive s-functional inequalities and quasi multipliers on Banach-algebras -- On Ulam stability of a generalization of the Fréchet functional equation on a restricted domain -- Miscellanea about the stability of functional equations -- Subdominant eigenvalue location

and the robustness of Dividend Policy Irrelevance -- A fixed point theorem in uniformizable spaces -- Symmetry of Birkhoff-James orthogonality of bounded linear operators -- Ulam stability of zero point equations -- Cauchy difference operator in some Orlicz spaces -- Semi-inner products and parapreseminorms on groups and a generalization of a theorem of Maksa and Volkmann on additive functions -- Invariant means in stability theory -- On geometry of Banach function modules - selected topics -- On exact and approximate orthogonalities based on norm derivatives.

Sommario/riassunto

This book is an outcome of two Conferences on Ulam Type Stability (CUTS) organized in 2016 (July 4-9, Cluj-Napoca, Romania) and in 2018 (October 8-13, 2018, Timisoara, Romania). It presents up-to-date insightful perspective and very resent research results on Ulam type stability of various classes of linear and nonlinear operators; in particular on the stability of many functional equations in a single and several variables (also in the lattice environments, Orlicz spaces, quasi-b-Banach spaces, and 2-Banach spaces) and some orthogonality relations (e.g., of Birkhoff–James). A variety of approaches are presented, but a particular emphasis is given to that of fixed points, with some new fixed point results and their applications provided. Besides these several other topics are considered that are somehow related to the Ulam stability such as: invariant means, geometry of Banach function modules, queueing systems, semi-inner products and parapreseminorms, subdominant eigenvalue location of a bordered diagonal matrix and optimal forward contract design for inventory. New directions and several open problems regarding stability and non-stability concepts are included. Ideal for use as a reference or in a seminar, this book is aimed toward graduate students, scientists and engineers working in functional equations, difference equations, operator theory, functional analysis, approximation theory, optimization theory, and fixed point theory who wish to be introduced to a wide spectrum of relevant theories, methods and applications leading to interdisciplinary research. It advances the possibilities for future research through an extensive bibliography and a large spectrum of techniques, methods and applications.