Frontiers in Functional Equations and Analytic Inequalities

- Features self-contained chapters that can be read independently
- Presents cutting-edge research from the frontiers of functional equations and analytic inequalities active fields
- Contains an extensive list of references

This volume presents cutting edge research from the frontiers of functional equations and analytic inequalities active fields. It covers the subject of functional equations in a broad sense, including but not limited to the following topics: Hyperstability of a linear functional equation on restricted domains, Hyers–Ulam's stability results to a three point boundary value problem of nonlinear fractional order differential equations. The topological degree theory and Ulam's stability analysis of a boundary value problem of fractional differential equations. General solution and Hyers-Ulam stability of Duo Trigintic Functional Equation in Multi-Banach Spaces. Stabilities of Functional Equations via Fixed Point Technique. Measure zero stability problem for the Drygas functional equation with complex involution Fourier Transforms and Ulam Stabilities of Linear Differential Equations. Hyers–Ulam stability of a discrete diamond–alpha derivative equation. Approximations of solutions of an interesting new mixed type additive-quadratic-quartic functional equation. The diverse selection of inequalities covered includes Opial, Hilbert-Pachpatte, Ostrowski, comparison of means, Poincare, Sobolev, Landau, Polya-Ostrowski, Hardy, Hermite-Hadamard, Levinson, and complex Korovkin type. The inequalities are also in the environment of Fractional Calculus and Conformable Fractional Calculus. Applications from this book's results can be found in many areas of pure and applied mathematics, especially in ordinary and partial differential equations and fractional differential equations. As such, this volume is suitable for researchers, graduate students and related seminars, and all science and engineering libraries.

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