

Search by keywords, subject, or ISBN



Shop By Subject | Instructors & Students | Professional Practice | Publish With Us



Copyright Year 2021	<u>auny</u>			
Hardback £130.00	eBook £44.09			
		FREE Stan	FREE Standard Shipping	
ISBN 9780367636678		Format	Quantity	
228 Pages		Hardback	× 1	
 Request eBook Inspection Copy Available on Taylor & Francis aBooks 			GBP £ 130 .00	
 Available on Taylor & Francis eBooks Preview this title 		🛧 Add To Wish List	😭 ADD TO CART	
			PURCHASE LOCALLY	
		Prices & shipping ba	Prices & shipping based on <u>shipping country</u>	

Table of Contents

Book Description

Hyers-Ulam Stability of Ordinary Differential Equations undertakes an interdisciplinary,

> Mathematics & Statistics for

a solution of the corresponding equation before the audience at the University of Wisconsin which was first answered by D. H. Hyers on Banach space in 1941. Thereafter, T. Aoki, D. H. Bourgin and Th. M. Rassias improved the result of Hyers. After that many researchers have extended the Ulam's stability problems to other functional equations and generalized Hyer's result in various directions. Last three decades, this topic is very well known as Hyers-Ulam Stability or sometimes it is referred Hyers-Ulam-Rassias Stability. This book synthesizes interdisciplinary theory, definitions and examples of Ordinary Differential and Difference Equations dealing with stability problems.

The purpose of this book is to display the new kind of stability problem to global audience and accessible to a broader interdisciplinary readership for e.g those are working in Mathematical Biology Modeling, bending beam problems of mechanical engineering also, some kind of models in population dynamics. This book may be a starting point for those associated in such research and covers the methods needed to explore the analysis.

Features:

- The state-of-art is pure analysis with background functional analysis.
- A rich, unique synthesis of interdisciplinary findings and insights on resources.
- As we understand that the real world problem is heavily involved with Differential and Difference equations, the cited problems of this book may be useful in a greater sense as long as application point of view of this Hyers-Ulam Stability theory is concerned.
- Information presented in an accessible way for students, researchers, scientists and engineers.

Table of Contents

Introduction and Preliminaries. Stability of First Order Linear Differential Equations. Stability of Second Order Linear Differential Equations. Hyers-Ulam Stability of Exact Linear Differential Equations. Hyers-Ulam Stability of Euler's Differential Equations. Generalized Hyers-Ulam Stability of Differential Equations. In Complex Banach Space. Hyers-Ulam Stability of Difference Equations. Bibliography. Index.

Author(s)

- > Engineering & Technology
- > Analysis Mathematics

Mathematical Analysis

- > Advanced Mathematics
- > Mathematics & Statistics
- > Differential Equations & Nonlinearity
- Real, Complex & Functional Analysis >
- > Mathematics for Engineering

Biography

Dr. Arun Kumar Tripathy, Reader, Department of Mathematics, Sambalpur University, Sambalpur-768019 is a known name in the literature of Oscillation Theory since last two decades. His contribution basically deals with the linear and nonlinear neutral equations in difference equations, differential equations as well as in Time scales of first, second fourth and higher order equations. It is almost important that this theory is a part of so called Dynamical Systems based on Qualitative Behaviour of Solutions Differential and Difference equations. Up to his credit, he has published seventy research papers in peer reviewed journals of international repute. Apart from that he has several international collaborators Prof. S. Pinelas (Portugal), Prof. E. Schmeidal (Poland), Prof. T. G. Baskar (USA) etc. He has been invited to give talks at several international conferences. He is a potential reviewer of many international journals. After completing successfully the two years Post-Doctoral Fellowship offered by National Board for Higher Mathematics, Dept of Atomic Energy, Mumbai, Govt of India, Dr Tripathy has started his teaching career in the year 2003 and till now it is a primary job. Besides this, research is his special interest and this interest has been continued since 19 years.

Back To Top **^**







ROUTL

J

G