

Librería
Bonilla y Asociados
desde 1950



Título: Introduction To Approximation Theory: Second Edition

Autor: Rebecca Waldecker

Precio: Desconocido

Editorial:

Año: 1982

Tema:

Edición: 1ª

Sinopsis

ISBN: 9780821813744

This volume contains historical background and discussion of results for each chapter, References, and an Index.

Reviews

From a review of the original edition ...

"In this book, which is intended to be an introduction to the subject, the author steers a middle course between the various viewpoints. On the one hand, he presents his material within the framework of (elementary) functional analysis ... and on the other hand he treats various algorithms which prepare the way for the numerical solution of various types of approximation problems. One of the highlights of the book is Chapter V on rational approximation which is an important case of non-linear approximation ... The book concludes with a detailed and interesting section on historical notes and a lengthy bibliography. There are approximately 430 good exercises. The author has provided a usable and very versatile text which is certainly to be recommended."

-- Mathematical Reviews

"E. W. Cheney's highly respected and well-known book ... covers an enormous amount of material ... [It] is written with a clarity and precision which those who are familiar with the author's many papers have come to expect ... There is an appendix which supplements each chapter with copious notes and serves to place the particular topic in historical perspective ... [T]he notes are invaluable; their effect is to make a small book almost encyclopedic in character. ... In the quality of its exposition and the skill and craft manifest in its organization, the book is a classic with few competitors. Anyone involved with computer mathematics will want it nearby."

-- Computing Reviews

Teléfonos: 55 44 73 40 y 55 44 72 91

www.libreriabonilla.com.mx

Librería
Bonilla y Asociados
desde 1950



Table of Contents

Introduction

- 1 Examples and prospectus
- 2 Metric spaces
- 3 Normed linear spaces
- 4 Inner-product spaces
- 5 Convexity
- 6 Existence and unicity of best approximations
- 7 Convex functions

The Tchebycheff Solution of Inconsistent Linear Equations

- 1 Introduction
- 2 Systems of equations with one unknown
- 3 Characterization of the solution
- 4 The special case
- 5 Pólya's algorithm
- 6 The ascent algorithm
- 7 The descent algorithm
- 8 Convex programming

Tchebycheff Approximation by Polynomials and Other Linear Families

- 1 Introduction
- 2 Interpolation
- 3 The Weierstrass theorem
- 4 General linear families
- 5 the unicity problem
- 6 Discretization errors: General theory
- 7 Discretization: Algebraic polynomials. The inequalities of Markoff and Bernstein
- 8 Algorithms

Least-squares Approximation and Related Topics

- 1 Introduction

Librería
Bonilla y Asociados
desde 1950



- 2 Orthogonal systems of polynomials
- 3 Convergence of orthogonal expansions
- 4 Approximation by series of Tchebycheff polynomials
- 5 Discrete least-squares approximation
- 6 The Jackson theorems

Rational Approximation

- 1 Introduction
- 2 Existence of best rational approximations
- 3 The characterization of best approximations
- 4 Unicity; Continuity of best-approximation operators
- 5 Algorithms
- 6 Padé Approximation and its generalizations
- 7 Continued fractions

Some Additional Topics

- 1 The Stone approximation theorem
 - 2 The Müntz theorem
 - 3 The converses of the Jackson theorems
 - 4 Polygonal approximation and bases in $C[a,b]$
 - 5 The Kharshiladze-Lozinski theorems
 - 6 Approximation in the mean
- Notes
References
Index