

<<傅立叶级数 (第1卷)>>

图书基本信息

书名：<<傅立叶级数 (第1卷)>>

13位ISBN编号：9787506265782

10位ISBN编号：7506265788

出版时间：2003-11

出版时间：世界图书出版公司(此信息作废)

作者：R.E.Edwards

页数：224

版权说明：本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问：<http://www.tushu007.com>

<<傅立叶级数 (第1卷)>>

内容概要

The principal aim in writing this book has been to provide an introduction, barely more, to some aspects of Fourier series and related topics in which a liberal use is made of modern techniques and which guides the reader toward some of the problems of current interest in harmonic analysis generally. The use of modern concepts and techniques is, in fact, as wide-spread as is deemed to be compatible with the desire that the book shall be useful to senior undergraduates and beginning graduate students, for whom it may perhaps serve as preparation for Rudin ' s Harmonic Analysis on Groups and the promised second volume of Hewitt and Ross ' s Abstract Harmonic Analysis.

书籍目录

Chapter 1 TRIGONOMETRIC SERIES AND FOURIER SERIES 1.1 The Genesis of Trigonometric Series and Fourier Series 1.2 Pointwise Representation of Functions by Trigonometric Series 1.3 New Ideas about Representation Exercises

Chapter 2 GROUP STRUCTURE AND FOURIER SERIES 2.1 Periodic Functions 2.2 Translates of Functions. Characters and Exponentials. The Invariant Integral 2.3 Fourier Coefficients and Their Elementary Properties 2.4 The Uniqueness Theorem and the Density of Trigonometric Polynomials 2.5 Remarks on the Dual Problems Exercises

Chapter 3 CONVOLUTIONS OF FUNCTIONS 3.1 Definition and First Properties of Convolution 3.2 Approximate Identities for Convolution 3.3 The Group Algebra Concept 3.4 The Dual Concepts Exercises

Chapter 4 HOMOMORPHISMS OF CONVOLUTION ALGEBRAS 4.1 Complex Homomorphisms and Fourier Coefficients 4.2 Homomorphisms of the Group Algebra Exercises

Chapter 5 THE DIRICHLET AND FEJER KERNELS. CESARO SUMMABILITY 5.1 The Dirichlet and Fejer Kernels 5.2 The Localization Principle 5.3 Remarks concerning Summability Exercises

Chapter 6 CESARO SUMMABILITY OF FOURIER SERIES AND ITS CONSEQUENCES 6.1 Uniform and Mean Summability 6.2 Applications and Corollaries of 6.1.1 6.3 More about Pointwise Summability 6.4 Pointwise Summability Almost Everywhere 6.5 Approximation by Trigonometric Polynomials 6.6 General Comments on Summability of Fourier Series 6.7 Remarks on the Dual Aspects Exercises

Chapter 7 SOME SPECIAL SERIES AND THEIR APPLICATIONS 7.1 Some Preliminaries 7.2 Pointwise Convergence of the Series  $C$  and  $S$  7.3 The Series  $C$  and  $S$  as Fourier Series 7.4 Application to  $AZ$  7.5 Application to Factorization Problems Exercises

Chapter 8 FOURIER SERIES IN  $L^2$  8.1 A Minimal Property 8.2 Mean Convergence of Fourier Series in  $L^2$ . Parseval's Formula 8.3 The Riesz-Fischer Theorem 8.4 Factorization Problems Again 8.5 More about Mean Moduli of Continuity 8.6 Concerning Subsequences of  $s_n$  8.7  $AZ$  Once Again Exercises

Chapter 9 POSITIVE DEFINITE FUNCTIONS AND BOCHNER'S THEOREM 9.1 Mise-en-Scene 9.2 Toward the Bochner Theorem 9.3 An Alternative Proof of the Parseval Formula 9.4 Other Versions of the Bochner Theorem Exercises

Chapter 10 POINTWISE CONVERGENCE OF FOURIER SERIES 10.1 Functions of Bounded Variation and Jordan's Test 10.2 Remarks on Other Criteria for Convergence; Dini's Test 10.3 The Divergence of Fourier Series 10.4 The Order of Magnitude of  $s_n$ . Pointwise Convergence Almost Everywhere 10.5 More about the Parseval Formula 10.6 Functions with Absolutely Convergent Fourier Series Exercises

Appendix A METRIC SPACES AND BAIRE'S THEOREM A.1 Some Definitions A.2 Baire's Category Theorem A.3 Corollary A.4 Lower Semicontinuous Functions A.5 A Lemma

Appendix B CONCERNING TOPOLOGICAL LINEAR SPACES B.1 Preliminary Definitions B.2 Uniform Boundedness Principles B.3 Open Mapping and Closed Graph Theorems B.4 The Weak Compactness Principle B.5 The Hahn-Banach Theorem

Appendix C THE DUAL OF  $L^p$   $1 < p < \infty$ ; WEAK SEQUENTIAL COMPLETENESS OF  $L^1$  C.1 The Dual of  $L^p$   $1 < p < \infty$

<<傅立叶级数 (第1卷)>>

版权说明

本站所提供下载的PDF图书仅提供预览和简介, 请支持正版图书。

更多资源请访问:<http://www.tushu007.com>