

<<半群上的调和与分析>>

图书基本信息

书名：<<半群上的调和与分析>>

13位ISBN编号：9787510047176

10位ISBN编号：751004717X

出版时间：2012-8

出版时间：世界图书出版公司

作者：博格

页数：289

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>

<<半群上的调和分析>>

内容概要

The purpose of this book is to provide a treatment of these positive definite functions on abelian semigroups with involution. In doing so we also discuss related topics such as negative definite functions, completely monotone functions and Hoeffding-type inequalities. We view these subjects as important ingredients of harmonic analysis on semigroups. It has been our aim, simultaneously, to write a book which can serve as a textbook for an advanced graduate course, because we feel that the notion of positive definiteness is an important and basic notion which occurs in mathematics as often as the notion of a Hilbert space. The already mentioned Laplace and Fourier transformations, as well as the generating functions for integer valued random variables, belong to the most important analytical tools in probability theory and its applications. Only recently it turned out that positive (resp. negative) definite functions allow a probabilistic characterization in terms of so-called Hoeffding-type inequalities.

<<半群上的调和分析>>

作者简介

作者：（丹麦）博格（Christian Berg）

<<半群上的调和分析>>

书籍目录

CHAPTER 1 Introduction to Locally Convex Topological Vector Spaces and Dual Pairs

1. Locally Convex Vector Spaces
2. Hahn-Banach Theorems
3. Dual Pairs

Notes and Remarks

CHAPTER 2 Radon Measures and Integral Representations

1. Introduction to Radon Measures on Hausdorff Spaces
2. The Riesz Representation Theorem
3. Weak Convergence of Finite Radon Measures
4. Vague Convergence of Radon Measures on Locally Compact Spaces
5. Introduction to the Theory of Integral Representations

Notes and Remarks

CHAPTER 3 General Results on Positive and Negative Definite Matrices and Kernels

1. Definitions and Some Simple Properties of Positive and Negative Definite Kernels
2. Relations Between Positive and Negative Definite Kernels
3. Hilbert Space Representation of Positive and Negative Definite Kernels

Notes and Remarks

CHAPTER 4 Main Results on Positive and Negative Definite Functions on Semigroups

1. Definitions and Simple Properties
2. Exponentially Bounded Positive Definite Functions on Abelian Semigroups
3. Negative Definite Functions on Abelian Semigroups
4. Examples of Positive and Negative Definite Functions
5. Positive Functions
6. Completely Monotone and Alternating Functions

Notes and Remarks

CHAPTER 5 Schoenberg-Type Results for Positive and Negative Definite Functions

1. Schoenberg Triples
2. Norm Dependent Positive Definite Functions on Banach Spaces
3. Functions Operating on Positive Definite Matrices
4. Schoenberg's Theorem for the Complex Hilbert Sphere
5. The Real Infinite Dimensional Hyperbolic Space

Notes and Remarks

CHAPTER 6 Positive Definite Functions and Moment Functions

1. Moment Functions
2. The One-Dimensional Moment Problem
3. The Multi Dimensional Moment Problem
4. The Two-Sided Moment Problem

<<半群上的调和分析>>

5. Perfect Semigroups

Notes and Remarks

CHAPTER 7 Hoeffding's Inequality and Multivariate

Majorization

1. The Discrete Case

2. Extension to Nondiscrete Semigroups

3. Completely Negative Definite Functions and Schur-Monotonicity

Notes and Remarks

CHAPTER 8 Positive and Negative Definite Functions on Abelian
Semigroups Without Zero

1. Quasibounded Positive and Negative Definite Functions

2. Completely Monotone and Completely Alternating Functions

Notes and Remarks

References

List of Symbols

Index

<<半群上的调和分析>>

章节摘录

版权页：插图：Notes and Remarks In his fundamental paper "Recherches sur les fractions continues", Stieltjes formulated and solved the moment problem which bears his name. Later Hamburger generalized Stieltjes' result to moment sequences of measures on the whole real line. Moments of a measure have been studied, before Stieltjes, by Tchebycheff and others, but concerning the history of the moment problem we refer to Shohat and Tamarkin (1943). Our choice of the name "moment function" on a semigroup S is motivated by this classical theory, which corresponds to the semigroup $(\mathbb{N}_0, +)$. Likewise the symbol (S) reflects the name of Hamburger. The results in 1.6-1.11 seem to be new but are, of course, known for some concrete semigroups. For a detailed study of Hamburger's moment problem, in particular of the set $E_+(R, s)$, we refer the reader to the classical monographs by Akhiezer (1965) and Shohat and Tamarkin (1943). Results about denseness of the set of polynomials in $P(R, \mu)$ can be found in Berg and Christensen (1981, 1983a). The F-moment problem in the case $F = \{x \in R \mid p(x) \geq 0\}$, where p is a fixed polynomial, is studied in Berg and Maserick (1982). It contains a characterization of the polynomials p for which the set of $\{p \geq 0\}$ -moment sequences is equal to $\{s \mid s, p(E)s \in e(\mathbb{N}_0)\}$. Here the F-moment problem where $F = R \setminus \bigcup_{i=1}^n]a_i, b_i[$ and $a_1 < b_1 < a_2$

<<半群上的调和分析>>

编辑推荐

《半群上的调和分析(英文)》由世界图书出版公司北京公司出版。

<<半群上的调和与分析>>

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>