

<<经典分析中的傅立叶积分>>

图书基本信息

书名：<<经典分析中的傅立叶积分>>

13位ISBN编号：9787506259187

10位ISBN编号：7506259184

出版时间：2003-4

出版时间：世界图书出版公司(此信息作废)

作者：G.D. Sogge

页数：236

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>

<<经典分析中的傅立叶积分>>

内容概要

Except for minor modifications, this monograph represents the lecture notes of a course I gave at UCLA during the winter and spring quarters of 1991. My purpose in the course was to present the necessary background material and to show how ideas from the theory of Fourier integral operators can be useful for studying basic topics in classical analysis, such as oscillatory integrals and maximal functions. The link between the theory of Fourier integral operators and classical analysis is of course not new, since one of the early goals of microlocal analysis was to provide variable coefficient versions of the Fourier transform. However, the primary goal of this subject was to develop tools for the study of partial differential equations and, to some extent, only recently have many classical analysts realized its utility in their subject.

<<经典分析中的傅立叶积分>>

书籍目录

Preface 0. Background 0.1. Fourier Transform 0.2. Basic Real Variable Theory 0.3. Fractional Integration and Sobolev Embedding Theorems 0.4. Wave Front Sets and the Cotangent Bundle 0.5. Oscillatory Integrals
Notes 1. Stationary Phase 1.1. Stationary Phase Estimates 1.2. Fourier Transform of Surface-carried Measures
Notes 2. Non-homogeneous Oscillatory Integral Operators 2.1. Non-degenerate Oscillatory Integral Operators
2.2. Oscillatory Integral Operators Related to the Restriction Theorem 2.3. Riesz Means in \mathbb{R}^n
2.4. Keakeya Maximal Functions and Maximal Riesz Means in \mathbb{R}^2 Notes 3. Pseudo-differential Operators
3.1. Some Basics 3.2. Equivalence of Phase Functions 3.3. Self-adjoint Elliptic Pseudo-differential Operators on Compact Manifolds
Notes 4. The Half-wave Operator and Functions of Pseudo-differential Operators
4.1. The Half-wave Operator 4.2. The Sharp Weyl Formula 4.3. Smooth Functions of Pseudo-differential Operators
Notes 5. LP Estimates of Eigenfunctions 5.1. The Discrete L^2 Restriction Theorem 5.2. Estimates for Riesz Means
5.3. More General Multiplier Theorems Notes 6. Fourier Integral Operators 6.1. Lagrangian Distributions
6.2. Regularity Properties 6.3. Spherical Maximal Theorems: Take 1 Notes 7. Local Smoothing of Fourier Integral Operators
7.1. Local Smoothing in Two Dimensions and Variable Coefficient Keakeya Maximal Theorems
7.2. Local Smoothing in Higher Dimensions 7.3. Spherical Maximal Theorems Revisited
Notes Appendix: Lagrangian Subspaces of $T^*\mathbb{R}^n$ Bibliography Index Index of Notation

<<经典分析中的傅立叶积分>>

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>