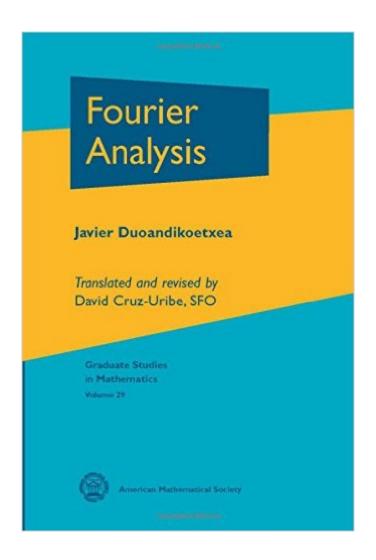
The book was found

Fourier Analysis (Graduate Studies In Mathematics)





Synopsis

Fourier analysis encompasses a variety of perspectives and techniques. This volume presents the real variable methods of Fourier analysis introduced by Calderà n and Zygmund. The text was born from a graduate course taught at the Universidad Autà noma de Madrid and incorporates lecture notes from a course taught by José Luis Rubio de Francia at the same university. Motivated by the study of Fourier series and integrals, classical topics are introduced, such as the Hardy-Littlewood maximal function and the Hilbert transform. The remaining portions of the text are devoted to the study of singular integral operators and multipliers. Both classical aspects of the theory and more recent developments, such as weighted inequalities, \$H^1\$, \$BMO\$ spaces, and the \$T1\$ theorem, are discussed. Chapter 1 presents a review of Fourier series and integrals; Chapters 2 and 3 introduce two operators that are basic to the field: the Hardy-Littlewood maximal function and the Hilbert transform. Chapters 4 and 5 discuss singular integrals, including modern generalizations. Chapter 6 studies the relationship between \$H^1\$, \$BMO\$, and singular integrals; Chapter 7 presents the elementary theory of weighted norm inequalities. Chapter 8 discusses Littlewood-Paley theory, which had developments that resulted in a number of applications. The final chapter concludes with an important result, the \$T1\$ theorem, which has been of crucial importance in the field. This volume has been updated and translated from the Spanish edition that was published in 1995. Minor changes have been made to the core of the book; however, the sections, "Notes and Further Results" have been considerably expanded and incorporate new topics, results, and references. It is geared toward graduate students seeking a concise introduction to the main aspects of the classical theory of singular operators and multipliers. Prerequisites include basic knowledge in Lebesgue integrals and functional analysis.

Book Information

Series: Graduate Studies in Mathematics (Book 29)

Hardcover: 222 pages

Publisher: American Mathematical Society (December 12, 2000)

Language: English

ISBN-10: 0821821725

ISBN-13: 978-0821821725

Product Dimensions: 0.8 x 7.2 x 10.2 inches

Shipping Weight: 1.4 pounds (View shipping rates and policies)

Average Customer Review: 4.5 out of 5 stars Â See all reviews (2 customer reviews)

Best Sellers Rank: #279,610 in Books (See Top 100 in Books) #13 in Books > Science & Math > Mathematics > Infinity #188 in Books > Science & Math > Mathematics > Mathematical Analysis

Customer Reviews

This book is just what I expected it to be. It is a very concise and clear introduction to Fourier Analysis.

I am reading this book for further study following a reading course I took with a Dr. Mikhail Vishik, who recommended me the book, in the fall of 2013. The development is very terse, but a course in generalized functions (distributions) - in my experience, from Rudin's Functional Analysis, chapters 6 and 7 - should prepare the reader both so that he may read the book competently and that he may gain a philosophical appreciation for it. Those familiar with the Princeton series on analysis by Stein & Shakarchi also may enjoy some nostalgia in reading Duoandikoetxea. The book "emphasizes the real variable methods developed by Calderon and Zygmund", so other beautiful results like the distributional Paley-Wiener theorems are absent.

Download to continue reading...

Fourier Analysis (Graduate Studies in Mathematics) Fourier Analysis on Number Fields (Graduate Texts in Mathematics) (v. 186) Graduate Programs in Business, Education, Information Studies, Law & Social Work 2017 (Peterson's Graduate Programs in Business, Education, Health, Information Studies, Law and Social Work) An Epsilon of Room Real Analysis: Pages from Year Three of a Mathematical Blog (Graduate Studies in Mathematics) Fourier Integrals in Classical Analysis (Cambridge Tracts in Mathematics) Insider's Guide to Graduate Programs in Clinical and Counseling Psychology (Insider's Guide to Graduate Programs in Clinical & Counseling Psychology) Real and Functional Analysis (Graduate Texts in Mathematics) (v. 142) The K-Book: An Introduction to Algebraic K-Theory (Graduate Studies in Mathematics) Partial Differential Equations (Graduate Studies in Mathematics, Vol. 19) Topics in Optimal Transportation (Graduate Studies in Mathematics, Vol. 58) Toric Varieties (Graduate Studies in Mathematics) Classical Groups and Geometric Algebra (Graduate Studies in Mathematics) A Course in Minimal Surfaces (Graduate Studies in Mathematics) Algebra: Chapter 0 (Graduate Studies in Mathematics) Number Theory: Algebraic Numbers and Functions (Graduate Studies in Mathematics) An introduction to nonharmonic Fourier series, Volume 93 (Pure and Applied Mathematics) An Introduction to Laplace Transforms and Fourier Series (Springer Undergraduate Mathematics Series) An Introduction to Lebesque Integration and Fourier Series (Dover Books on Mathematics) Schaum's Outline of

Fourier Analysis with Applications to Boundary Value Problems A First Course in Fourier Analysis

<u>Dmca</u>