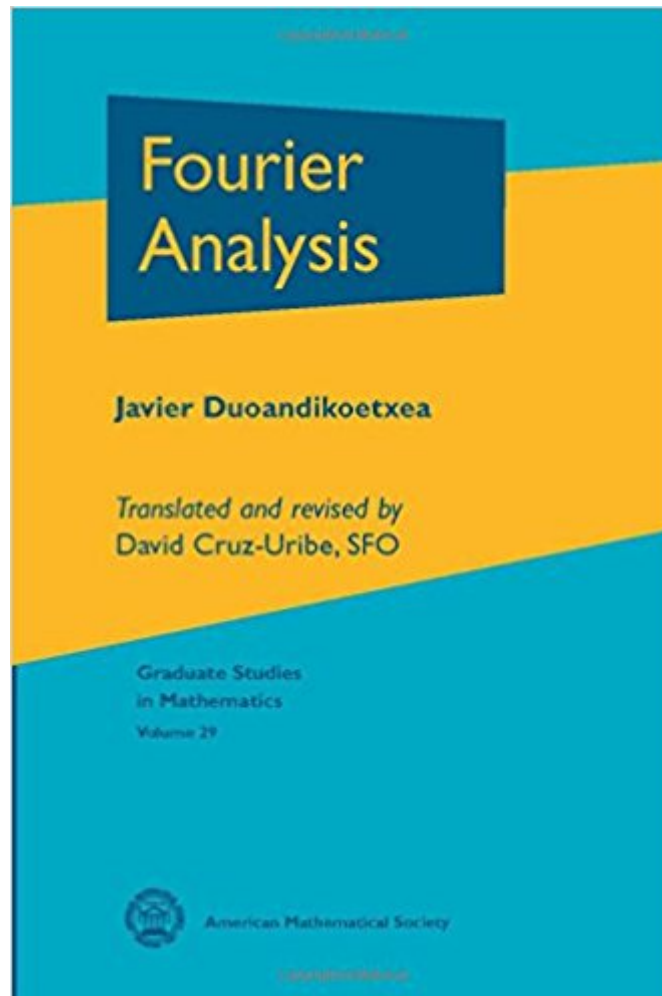




Ebook Directory
the best source of ebook

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 Calderón and Zygmund. The text was born from a graduate course taught at the Universidad Autónoma 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 2 customer reviews

Best Sellers Rank: #1,110,632 in Books (See Top 100 in Books) #79 in [Books > Science & Math > Mathematics > Infinity](#) #929 in [Books > Science & Math > Mathematics > Mathematical Analysis](#)

Customer Reviews

"This is a great introductory book to Fourier analysis on Euclidean spaces and can serve as a textbook in an introductory graduate course on the subject ... The chapters on the Hardy-Littlewood maximal function and the Hilbert transform are extremely well written ... this is a great book and is highly recommended as an introductory textbook to Fourier analysis. The students will have a lot to benefit from in the simple and quick presentation of the book." ---- Mathematical Reviews

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.

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

[Download to continue reading...](#)

Fourier Analysis (Graduate Studies in Mathematics) Classical Fourier Analysis (Graduate Texts in Mathematics) Modern Fourier Analysis (Graduate Texts in Mathematics) Random Fourier Series with Applications to Harmonic Analysis. (AM-101), Volume 101 (Annals of Mathematics Studies) Fourier Analysis on Groups (Dover Books on Mathematics) Principles of Fourier Analysis, Second Edition (Textbooks in Mathematics) Fourier Analysis: An Introduction (Princeton Lectures in Analysis) An Epsilon of Room Real Analysis: Pages from Year Three of a Mathematical Blog (Graduate Studies in Mathematics) Fourier Series, Transforms, and Boundary Value Problems: Second Edition (Dover Books on Mathematics) An Introduction to Laplace Transforms and Fourier Series (Springer Undergraduate Mathematics Series) Fourier Series (Dover Books on Mathematics) Chebyshev and Fourier Spectral Methods: Second Revised Edition (Dover Books on Mathematics)

Fourier Transforms (Dover Books on Mathematics) Inside the FFT Black Box: Serial and Parallel
Fast Fourier Transform Algorithms (Computational Mathematics) Matrix Analysis (Graduate Texts in
Mathematics) Handbook of Fourier Analysis & Its Applications A First Course in Wavelets with
Fourier Analysis First Course in Wavelets with Fourier Analysis Schaum's Outline of Fourier
Analysis with Applications to Boundary Value Problems A First Course in Fourier Analysis

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)