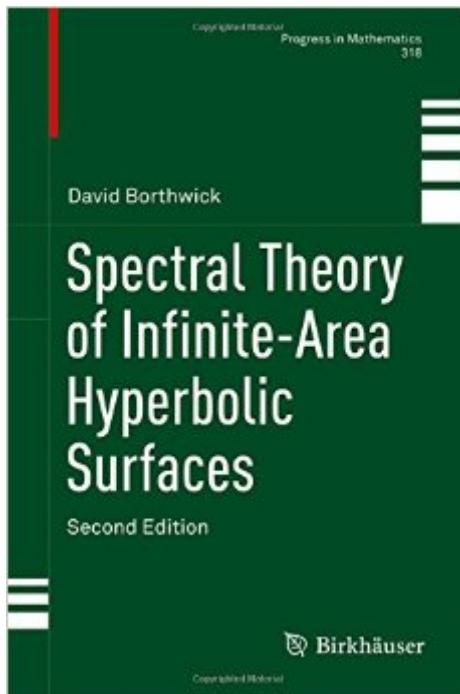


The book was found

Spectral Theory Of Infinite-Area Hyperbolic Surfaces (Progress In Mathematics)



Synopsis

This text introduces geometric spectral theory in the context of infinite-area Riemann surfaces, providing a comprehensive account of the most recent developments in the field. For the second edition the context has been extended to general surfaces with hyperbolic ends, which provides a natural setting for development of the spectral theory while still keeping technical difficulties to a minimum. All of the material from the first edition is included and updated, and new sections have been added. Topics covered include an introduction to the geometry of hyperbolic surfaces, analysis of the resolvent of the Laplacian, scattering theory, resonances and scattering poles, the Selberg zeta function, the Poisson formula, distribution of resonances, the inverse scattering problem, Patterson-Sullivan theory, and the dynamical approach to the zeta function. The new sections cover the latest developments in the field, including the spectral gap, resonance asymptotics near the critical line, and sharp geometric constants for resonance bounds. A new chapter introduces recently developed techniques for resonance calculation that illuminate the existing results and conjectures on resonance distribution. The spectral theory of hyperbolic surfaces is a point of intersection for a great variety of areas, including quantum physics, discrete groups, differential geometry, number theory, complex analysis, and ergodic theory. This book will serve as a valuable resource for graduate students and researchers from these and other related fields. Review of the first edition: "The exposition is very clear and thorough, and essentially self-contained; the proofs are detailed...The book gathers together some material which is not always easily available in the literature...To conclude, the book is certainly at a level accessible to graduate students and researchers from a rather large range of fields. Clearly, the reader...would certainly benefit greatly from it." (Colin Guillarmou, Mathematical Reviews, Issue 2008 h)

Book Information

Series: Progress in Mathematics (Book 318)

Hardcover: 463 pages

Publisher: Birkhäuser; 2nd ed. 2016 edition (July 13, 2016)

Language: English

ISBN-10: 3319338757

ISBN-13: 978-3319338750

Product Dimensions: 1.2 x 6.2 x 9.5 inches

Shipping Weight: 2 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #3,339,926 in Books (See Top 100 in Books) #129 in Books > Science & Math > Mathematics > Geometry & Topology > Non-Euclidean Geometries #792 in Books > Science & Math > Mathematics > Pure Mathematics > Functional Analysis #1749 in Books > Science & Math > Mathematics > Applied > Differential Equations

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

Spectral Theory of Infinite-Area Hyperbolic Surfaces (Progress in Mathematics) Global Propagation of Regular Nonlinear Hyperbolic Waves (Progress in Nonlinear Differential Equations and Their Applications, No. 76) Spectral Methods for Time-Dependent Problems (Cambridge Monographs on Applied and Computational Mathematics) The Autobiography of Emperor Haile Sellassie I: King of Kings of All Ethiopia and Lord of All Lords (My Life and Ethiopia's Progress) (My Life and ... (My Life and Ethiopia's Progress (Paperback)) Mountain Biking the San Francisco Bay Area: A Guide To The Bay Area's Greatest Off-Road Bicycle Rides (Regional Mountain Biking Series) Hyperbolic Geometry (Springer Undergraduate Mathematics Series) Well-Posedness of Linear Hyperbolic Problems: Theory and Applications The Higher Infinite: Large Cardinals in Set Theory from Their Beginnings (Springer Monographs in Mathematics) The Theory of Jacobi Forms (Progress in Mathematics) General Investigations of Curved Surfaces: Edited with an Introduction and Notes by Peter Pesic (Dover Books on Mathematics) Differential Geometry of Curves and Surfaces: Revised and Updated Second Edition (Dover Books on Mathematics) A Course in Minimal Surfaces (Graduate Studies in Mathematics) Riemann Surfaces (Oxford Graduate Texts in Mathematics) Discontinuous Groups and Riemann Surfaces (AM-79): Proceedings of the 1973 Conference at the University of Maryland. (AM-79) (Annals of Mathematics Studies) Spectral Shakespeares: Media Adaptations in the Twenty-First Century (Reproducing Shakespeare) Haunted Savannah: America's Most Spectral City Spectral Methods in MATLAB (Software, Environments, Tools) A Beginner's Guide to Mass Spectral Interpretation Lectures on Hyperbolic Geometry (Universitext) Geometry Illuminated: An Illustrated Introduction to Euclidean and Hyperbolic Plane Geometry (Maa Textbooks)

[Dmca](#)