

1. Record Nr.	UNINA9910754088903321
Autore	Alonso Ruiz Patricia
Titolo	From Classical Analysis to Analysis on Fractals [[electronic resource]] : A Tribute to Robert Strichartz, Volume 1 // edited by Patricia Alonso Ruiz, Michael Hinz, Kasso A. Okoudjou, Luke G. Rogers, Alexander Teplyaev
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Birkhäuser, , 2023
ISBN	3-031-37800-8
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (294 pages)
Collana	Applied and Numerical Harmonic Analysis, , 2296-5017
Altri autori (Persone)	HinzMichael OkoudjouKasso A RogersLuke G TeplyaevAlexander
Disciplina	515
Soggetti	Functional analysis Harmonic analysis Probabilities Measure theory Differential equations Functional Analysis Abstract Harmonic Analysis Probability Theory Measure and Integration Differential Equations
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Part I. Introduction to this volume -- From Strichartz Estimates to Differential Equations on Fractals -- Part II. Functional and harmonic analysis on Euclidean spaces -- A new proof of Strichartz estimates for the Schrödinger equation in $2 + 1$ dimensions -- Modulational instability of classical water waves -- Convergence Analysis of the Deep Galerkin Method for Weak Solutions -- The 4-player gambler's ruin problem -- Part III. Analysis on Manifolds -- Product Manifolds with

Improved Spectral Cluster and Weyl Remainder Estimates -- A scalar valued Fourier transform for the Heisenberg group -- Asymptotic behavior of the heat semigroup on certain Riemannian manifolds -- Part IV. Intrinsic Analysis on Fractals -- Fourier Series for Fractals in 2 Dimensions -- Blowups and Tops of Overlapping Iterated Function Systems -- Estimates of the local spectral dimension of the Sierpinski gasket -- Heat kernel fluctuations for stochastic processes on fractals and random media -- Index.

Sommario/riassunto

Over the course of his distinguished career, Robert Strichartz (1943-2021) had a substantial impact on the field of analysis with his deep, original results in classical harmonic, functional, and spectral analysis, and in the newly developed analysis on fractals. This is the first volume of a tribute to his work and legacy, featuring chapters that reflect his mathematical interests, written by his colleagues and friends. An introductory chapter summarizes his broad and varied mathematical work and highlights his profound contributions as a mathematical mentor. The remaining articles are grouped into three sections – functional and harmonic analysis on Euclidean spaces, analysis on manifolds, and analysis on fractals – and explore Strichartz' contributions to these areas, as well as some of the latest developments.
