

Chapter 1 : Spectral Theory and Differential Equations: V. A. Marchenko's 90th Anniversary Collection

In mathematics, the spectral theory of ordinary differential equations is the part of spectral theory concerned with the determination of the spectrum and eigenfunction expansion associated with a linear ordinary differential equation.

Pierre Albin – Analytic representations of topological invariants, analysis on non-compact or singular spaces, spectral geometry. Florin Boca – Operator algebras, number theory, mathematical physics. Marius Junge – Banach and operator spaces, operator algebras, noncommutative probability. Ely Kerman – Hamiltonian dynamics and symplectic topology. Kay Kirkpatrick – Statistical mechanics, probability, differential equations, and applications to physics and biology. Denka Kutzarova – Functional analysis geometry of Banach spaces, approximation theory. Richard Laugesen – Differential equations, mathematical physics, and complex analysis; specialty - extremal problems. Xiaochun Li – Hilbert transform along the vector field; Multilinear oscillatory integrals; multilinear Carleson theorem. Igor Nikolaev – Quasiconformal mappings, Monge-Ampere equations, regularity problems in Riemannian geometry. Palmore – Dynamical systems, chaos theory, and frameworks for analysis, stability, and verification, validation and visualization of distributed interactive simulations. Zhong-Jin Ruan – Operator spaces and operator algebras. Richard Sowers – Probability theory, stochastic analysis, partial differential equations. Anush Tserunyan – Descriptive set theory, Borel actions of countable groups, definable equivalence relations, Polish group actions, applications in ergodic theory and topological dynamics. Tumanov – Several complex variables, differential geometry, partial differential equations. Jeremy Tyson – Geometric function theory, quasiconformal maps, analysis in nonsmooth metric spaces, sub-Riemannian geometry. Postdocs Jing Wang – Fields probability, analysis, and sub-Riemannian geometry. In particular diffusion semigroups on sub-Riemannian manifolds and the related functional inequalities with geometric contents; small time estimations of transition densities of strongly hypoelliptic diffusion processes. Lee DeVille – Stochastic analysis, differential equations, dynamical systems. Eduard Kirr – Existence and stability of coherent structures in equations from mathematical physics, their coupling with radiation under perturbations, theory and numerical simulation of waves in homogeneous and random media. Bruce Reznick – Combinatorial methods in analysis, inequalities. David Berg – Operator theory, spectral theory, almost periodic functions, manifolds with boundary, differential geometry. Berkson – Complex function theory, classical analysis, operator theory, real analysis. Helms – Probability theory, diffusion equations, second-order elliptic partial differential equations, heat equation, stochastic processes. Kaufman – Classical analysis, complex function theory, Hausdorff measure, analytic sets. Loeb – Nonstandard analysis, potential theory, covering theorems, integration theory. Miles – Entire and meromorphic functions, complex function theory, classical analysis. Muncaster – Invariant manifolds, asymptotic behavior, nonlinear elasticity, gas theory. Peressini – Functional analysis, math. Joseph Rosenblatt – Harmonic analysis, ergodic theory, functional analysis. Emeriti Faculty in Related Areas C. Ward Henson – Relations between analysis and mathematical logic, especially: Lynn McLinden – Convex, nonsmooth and nonlinear analysis, and their application to optimization, variational and equilibrium problems.

Chapter 2 : Analysis | Mathematics at Illinois

Abstract: This mini-course of 20 lectures aims at highlights of spectral theory for self-adjoint partial differential operators, with a heavy emphasis on problems with discrete spectrum.

Chapter 3 : [] Spectral Theory of Partial Differential Equations - Lecture Notes

Spectral theory of ordinary differential equations topic In mathematics, the spectral theory of ordinary differential equations is the part of spectral theory concerned with the determination of the spectrum and eigenfunction expansion associated with a linear ordinary differential equation.

Chapter 4 : Oscillation theory - Wikipedia

Spectral Theory and Differential Equations: Proceedings of the Symposium held at Dundee, Scotland, July , (Lecture Notes in Mathematics) th Edition.

Chapter 5 : Spectral theory of ordinary differential equations

Spectral Theory and Differential Equations Proceedings of the Symposium held at Dundee, Scotland, July,

Chapter 6 : Spectral theory - Wikipedia

Spectral theory of ordinary differential equations In mathematics, the spectral theory of ordinary differential equations is the part of spectral theory concerned with the determination of the spectrum and eigenfunction expansion associated with a linear ordinary differential equation.

Chapter 7 : Spectral theory of ordinary differential equations | Revolv

Singular left-definite systems of differential equations and the corresponding boundary-value problems are considered. The spectral theory of such systems is deduced; especially a norm-expansion theorem and a direct expansion theorem are derived.

Chapter 8 : Spectral theory of ordinary differential equations - Wikipedia

This volume collects six articles on selected topics at the frontier between partial differential equations and spectral theory, written by leading specialists in their respective field. The articles focus on topics that are in the center of attention of current research, with original contributions from the authors.

Chapter 9 : Partial differential equations and spectral theory in SearchWorks catalog

The purpose of this conference is to bring together scientists working in various areas of applied mathematics, analysis, operator theory, mathematical physics, and differential equations, with an emphasis on the following fields of research.