1. Record Nr. UNINA9910520093103321

Titolo	Differential Equations on Manifolds and Mathematical Physics : Dedicated to the Memory of Boris Sternin / / edited by Vladimir M. Manuilov, Alexander S. Mishchenko, Vladimir E. Nazaikinskii, Bert-Wolfgang Schulze, Weiping Zhang
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Birkhäuser, , 2021
ISBN	3-030-37326-6
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (349 pages)
Collana	Trends in Mathematics, , 2297-024X
Disciplina	516.07 515.353
Soggetti	Mathematical analysis Geometry, Differential Analysis Differential Geometry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Parametrix and localized solutions for linearized equations of gas dynamics -- Laplacians on generalized smooth distributions as C*-algebra multipliers -- C*-algebras generated by dynamical systems, and applications to nonlocal PDO -- The equivariant Atiyah-Patodi-Singer theorem -- Representations of Maslov's canonical operator in a neighborhood of caustics -- Resurgent analysis of singularly perturbed differential systems -- Dual linear programming problem and one-dimensional Gromov minimal fillings -- Complete semiclassical spectral asymptotics for periodic and almost periodic perturbations of constant operators -- Analytic properties of the Hörmander solution of the wave equation -- Derivations of group algebras and Hohschild cohomology -- Mellin operators in weighted corner Sobolev spaces -- Quantum Hall effect and noncommutative geometry -- Flat vector bundles and open coverings -- A class of Fredholm boundary value problems for the wave equation with conditions on the entire boundary -- Motion of mechanical systems across the singular points -- Large-time decay of solutions to the Kawahara equation -- Applications of the

Maslov index to phase reconstruction problems -- The complex homotopy principle of Grauert and Gromov for algebras of pseudo differential operators -- On the Fredholm solvability of operators associated with Morse-Smale diffeomorphisms -- Geometrical model of the one-dimensional double pendulum phase space -- Solutions for a nonlinear elliptic problem involving a variable exponent and measure data in unbounded domains -- Periodic internal layers in reaction-diffusion-advection equations with modular type advection -- Model of protosphera -- Pseudo-differential operators, equations, and elliptic boundary value problems.

Sommario/riassunto

This is a volume originating from the Conference on Partial Differential Equations and Applications, which was held in Moscow in November 2018 in memory of professor Boris Sternin and attracted more than a hundred participants from eighteen countries. The conference was mainly dedicated to partial differential equations on manifolds and their applications in mathematical physics, geometry, topology, and complex analysis. The volume contains selected contributions by leading experts in these fields and presents the current state of the art in several areas of PDE. It will be of interest to researchers and graduate students specializing in partial differential equations, mathematical physics, topology, geometry, and their applications. The readers will benefit from the interplay between these various areas of mathematics.