

1. Record Nr.	UNINA9910847079203321
Autore	Ruzhansky Michael
Titolo	Extended Abstracts MWCAPDE 2023 : Methusalem Workshop on Classical Analysis and Partial Differential Equations
Pubbl/distr/stampa	Cham : , : Springer International Publishing AG, , 2024 ©2024
ISBN	3-031-41665-1
Edizione	[1st ed.]
Descrizione fisica	1 online resource (239 pages)
Collana	Trends in Mathematics Series ; ; v.1
Altri autori (Persone)	TorebekBerikbol
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	<p>Intro -- Preface -- Contents -- Part I Theory of Functional Analysis, Operator Theory, and Applications -- Mappings of Finite Area Distortion: Hausdorff Measures -- 1 Introduction -- 2 Main Notions and Axillary Results -- 3 Main Results -- References -- The Principal Symbol of Elliptic Differential Operators on Lie Groups and Homogeneous Spaces -- 1 Introduction -- 2 Vector Bundles over Lie Groups Defined by Representations -- 3 Elliptic Differential Operators and Principal Symbols -- 4 Vector Bundles over Homogeneous Spaces and Bott's Induction -- 4.1 Laplacian on G -- 4.2 De Rham Operator on Sn -- References -- On Fractional Quaternionic d-Bar Derivatives -- 1 Introduction -- 2 The Main Definition -- 3 Composition Results -- 4 Fueter Variables and Polynomials -- References -- A Note on Homogeneous Geometry of G2-Type Real Flag Manifolds -- 1 Introduction -- 2 Preliminaries -- 2.1 A Model for g2 -- 2.2 A Root System -- 2.3 Real Flag Manifolds of g2 -- 3 Homogeneous Metrics -- 3.1 The Isotropy Representation -- 3.2 K-Invariant Metrics -- 4 The Homogeneous Ricci Flow for ={1} -- References -- Titchmarsh Theorems for Fourier Transforms of Hölder-Lipschitz Functions on Fundamental Domains of Lattices in Rd -- 1 Introduction -- 2 Titchmarsh Theorems for Hölder-Lipschitz Spaces -- 2.1 Additive Case -- 2.2 Multiplicative Case -- 3 Titchmarsh Theorems for Dini-Lipschitz Spaces -- 3.1 Additive Case -- 3.2 Multiplicative Case -- 4 Moduli of Continuity -- References -- Semi-sparsity for Triangular Mesh</p>

Denoising -- 1 Introduction -- 2 Preliminaries -- 2.1 Notation -- 2.2 Piecewise Linear Function Spaces and Differential Operators -- 3 Semi-sparsity Regularization for Mesh Denoising -- 3.1 Problem Formulation -- 3.2 The Efficient ADMM Solver -- 3.2.1 The N-Subproblem -- 3.2.2 The P-Subproblem -- 3.2.3 The Q-Subproblem -- 4 Experimental Results.
References -- Super-Resolution Reconstruction from Truncated Fourier Transform -- 1 Introduction -- 2 Preliminaries -- 3 Reconstruction Formulas from [1] -- 4 Numerical Results of [2] -- References -- Interpolation Theorem for Discrete Net Spaces -- References -- Titchmarsh Theorem by Modulus of Continuity for the Deformed Hankel-Lipschitz Classes -- 1 Introduction -- 2 Preliminaries -- 2.1 Modulus of Continuity -- 2.2 The Deformed Hankel Theory on R -- 3 Statements of the Results -- References -- Titchmarsh Theorems for Hölder-Lipschitz Functions on Profinite Groups -- References -- An Efficient Neural Network for the Diagnosis of Parkinson's Disease Using Dynamic Handwriting Analysis -- 1 Introduction -- 2 Materials -- 3 Data Processing -- 4 LSTM-CNN -- 5 Experiments -- 6 Conclusions -- References -- Part II Classical and Non-classical Problems of PDEs -- On q2-Analogue of the One-Dimensional Non-Homogeneous Heat Equation -- 1 Introduction -- 2 Preliminaries -- 3 Main Result -- References -- Non-local and Inverse Problems for the Rayleigh-Stokes Equation -- 1 Introduction -- 2 Non-local Problem -- 3 Inverse Problem -- References -- Very Weak Solution of the Discrete Heat Equation with Irregular Time-Dependent Thermal Conductivity -- 1 Introduction -- 2 Preliminaries -- 3 Main Results -- References -- On a Mixed Stokes Problem with Variable Viscosity in the 2D Exterior Domain -- 1 Introduction -- 2 Preliminaries -- 3 Parametrix and Remainder -- 3.1 Volume and Surface Potentials -- 4 The Third Green Identities -- 5 BDIEs for Mixed BVP -- References -- The Mixed Initial-Boundary Value Problem for Degenerate Hyperbolic Equation -- 1 Introduction -- 2 Preliminaries -- 3 Main Results -- References -- A Criterion for Minimality of the Mixed Type Operators -- 1 Introduction -- 2 Main Results -- References.
An Analogue of the d'Alembert Formula for the Gurtin-Pipkin Equation with Multipoint Boundary Conditions for Zero Initial Data -- 1 Introduction -- 2 On the Solvability of a Single Multipoint Problem -- 3 An Analogue of the d'Alembert Formula for a Mixed Problem for the Gurtin-Pipkin Equation -- References -- On Fredholm Solvability and on the Index of the Generalized Neumann Problem for an Elliptic Equation of High Order on a Plane -- 1 Introduction -- 2 Description of the Fredholm Property of Problem (1.1),(1.2) -- 3 Equivalence of the Fredholm Property Condition for Problem (1.1), (1.2) to the Complementarity Condition -- 4 Continuation of the Description of the Fredholm Property Condition for Problem (1.1), (1.2) -- References -- Solutions with Power Type or Exponential Singularity for (3+1)-D Protter-Morawetz Problems -- 1 Introduction and History -- 2 Generalized Solutions with Power-Type Singularity -- 3 Generalized Solutions with Exponential Singularity -- References -- Boundary Value Problems for Differential Equations with a High-Order Derivative in the Boundary Condition -- 1 Introduction -- 2 How Do Orthogonality Conditions Arise? -- 3 Orthogonality Conditions by the Method of Separation of Variables -- 4 Problem in the Class of Singular Solutions -- 5 Conditions for the Uniqueness of the Solution of the Problem -- 6 On One Well-Posed Problem with a High Derivative on the Boundary of the Domain -- References -- A Cauchy Problem for q-Heat Equation -- 1 Introduction -- 2 Preliminaries -- 3 A Cauchy for the q-Heat Equation -- References -- Evolutionary PDEs with Volterra Operators:

Direct and Inverse Source Problems -- 1 Introduction -- 2 Fractional Calculus -- 2.1 Direct Parabolic Problem -- 2.2 Parabolic Inverse Source Problem -- 2.3 Hyperbolic Direct Problem -- 2.4 Hyperbolic Inverse Source Setting.
3 Some Open Problems for VO Time-Fractional Derivatives -- References -- Inverse Source Problems in Thermoelasticity -- 1 Introduction -- 2 Identification of the Space-Dependent Sources f_p and f_h -- 3 Identification of the Time-Dependent Source g_h -- References -- A Direct Method of Moving Planes for Logarithmic Schrödinger Operator -- 1 Introduction -- 2 Key Ingredients for the Method of Moving Planes -- 3 Proof of the Main Theorem -- References.
