

# Contents

Preface .....	vii
<i>N. Bez and M. Sugimoto</i> Optimal Constant for a Smoothing Estimate of Critical Index .....	1
<i>T.B.N. Bui and M. Reissig</i> The Interplay Between Time-dependent Speed of Propagation and Dissipation in Wave Models .....	9
<i>F. Colombini, D. Del Santo, F. Fanelli and G. Métivier</i> A Note on Complete Hyperbolic Operators with log-Zygmund Coefficients .....	47
<i>E. Cordero, F. Nicola and L. Rodino</i> A Few Remarks on Time-frequency Analysis of Gevrey, Analytic and Ultra-analytic Functions .....	73
<i>S. Coriasco, K. Johansson and J. Toft</i> Global Wave-front Sets of Intersection and Union Type .....	91
<i>V. Fischer and M. Ruzhansky</i> A Pseudo-differential Calculus on Graded Nilpotent Lie Groups .....	107
<i>G. Garello and A. Morando</i> $L^p$ Microlocal Properties for Vector Weighted Pseudodifferential Operators with Smooth Symbols .....	133
<i>D. Grieser and E. Hunsicker</i> A Parametrix Construction for the Laplacian on $\mathbb{Q}$ -rank 1 Locally Symmetric Spaces .....	149
<i>N. Habal, W. Rungtrottheera and B.-W. Schulze</i> A Class of Elliptic Operators on a Manifold with Edge and Boundary .....	187

<i>C. Iwasaki</i>	
A Representation of the Fundamental Solution for the Fokker–Planck Equation and Its Application .....	211
<i>B. Kanguzhin and N. Tokmagambetov</i>	
The Fourier Transform and Convolutions Generated by a Differential Operator with Boundary Condition on a Segment .....	235
<i>S. Katayama and H. Kubo</i>	
Global Existence for Quadratically Perturbed Massless Dirac Equations Under the Null Condition .....	253
<i>M. Lassas and T. Zhou</i>	
Singular Partial Differential Operators and Pseudo-differential Boundary Conditions in Invisibility Cloaking .....	263
<i>T. Matsuyama</i>	
Perturbed Besov Spaces by a Short-range Type Potential in an Exterior Domain .....	285
<i>T. Nishitani</i>	
On the Cauchy Problem for Hyperbolic Operators with Double Characteristics, a Transition Case .....	311
<i>S. Ya. Serovajsky</i>	
Differentiation Functor and Its Application in the Optimization Control Theory .....	335
<i>K. Shakenov</i>	
The Solution of the Initial Mixed Boundary Value Problem for Hyperbolic Equations by Monte Carlo and Probability Difference Methods .....	349
<i>S. Tikhonov and M. Zeltser</i>	
Weak Monotonicity Concept and Its Applications .....	357
<i>Y. Wakasugi</i>	
Critical Exponent for the Semilinear Wave Equation with Scale Invariant Damping .....	375
<i>K. Yagdjian</i>	
Semilinear Hyperbolic Equations in Curved Spacetime .....	391



<http://www.springer.com/978-3-319-02549-0>

Fourier Analysis

Pseudo-differential Operators, Time-Frequency Analysis  
and Partial Differential Equations

Ruzhansky, M.V.; Turunen, V. (Eds.)

2014, VIII, 415 p. 2 illus., 1 illus. in color., Hardcover

ISBN: 978-3-319-02549-0

A product of Birkhäuser Basel