

Contents

I: PDE, Differential Geometry, Radon Transform

Preface	ix
David Shoikhet at Sixty MARK AGRANOVSKY, MARK ELIN, and LAWRENCE ZALCMAN	xi
Bibliography of David Shoikhet	xv
Conference Program	xxiii
List of Participants	xxix
Inversion of a Class of Circular and Elliptical Radon Transforms G. AMBARTSOUMIAN and V. P. KRISHNAN	1
Free Jump Dynamics in Continuum J. BARAŃSKA and Y. KOZITSKY	13
Instabilities in Kinetic Theory and Their Relationship to the Ergodic Theorem J. BEN-ARTZI	25
Some Recent Progress on Sharp Kato-type Smoothing Estimates N. BEZ and M. SUGIMOTO	41
Uniqueness of Photon Spheres in Static Vacuum Asymptotically Flat Spacetimes C. CEDERBAUM	51
The L^1 Liouville Property on Weighted Manifolds N. CHARALAMBOUS and Z. LU	65
Some Remarks on Gevrey Well-Posedness for Degenerate Schrödinger Equations M. CICOGNANI and M. REISSIG	81
Asymptotics for Damped Evolution Operators with Mass-like Terms M. D'ABBICCO	93
Singular Perturbations of Elliptic Operators E. DYACHENKO and N. TARKHANOV	117
An Initial-Boundary Value Problem in a Strip for Two-Dimensional Equations of Zakharov–Kuznetsov Type A. V. FAMINSKII	137

Analysis of First Order Systems of Partial Differential Equations Y.-L. FANG and D. VASSILIEV	163
An Embedding into an Orlicz Space for L_1^1 -Functions from Irregular Domains P. HARJULEHTO and R. HURRI-SYRJÄNEN	177
Qualitative Properties of Solution to Structurally Damped σ -Evolution Models with Time Decreasing Coefficient in the Dissipation M. KAINANE MEZADEK and M. REISSIG	191
The Riemannian Penrose Inequality with Charge for Multiple Black Holes M. KHURI, G. WEINSTEIN, and S. YAMADA	219
Criteria for Invariance of Convex Sets for Linear Parabolic Systems G. KRESIN and V. MAZ'YA	227
On an Extension of Harmonicity and Holomorphy J. ŁAWRYNOWICZ, A. NIEMCZYNOWICZ, M. NOWAK-KĘPCZYK, and L. M. TOVAR SÁNCHEZ	243
Large Data Solutions for Critical Semilinear Weakly Hyperbolic Equations S. LUCENTE	251
The Fredholm Property and Essential Spectra of Pseudodifferential Operators on Non-Compact Manifolds and Limit Operators V. RABINOVICH	277
Overdetermined Transforms in Integral Geometry B. RUBIN	291