International Conference

Conference on Partial Differential Equations and Applications in Memory of Professor B. Yu. Sternin

November 6 – 9, 2018

Program

RUDN University

Moscow

Tuesday, November 6, 2018

| 8:30 | | Registration and Coffee | (Hall №1, 7th floor and Canteen) |

| 10:30 | | Opening Ceremony | (Hall №1, 7th floor) |

	(Hall №1, 7th floor) Chair: A.S. Mishchenko
11:00	V. Ivrii: Complete semiclassical spectral asymptotics for periodic and almost periodic perturbations of constant operators
11:50	V.G. Maz'ya: Sobolev inequalities in arbitrary domains

12:40–14:10   **Lunch (RUDN canteen)**

	(Hall №1, 7th floor) Chair: Yu.A. Kordyukov
14:10	S.M. Gusein-Zade: Universal Euler characteristic of orbifolds

	S1 (Hall №1, 7th floor) Chair: Yu.A. Kordyukov	S2 (Room 485) Chair: Yu.A. Alkhutov	S3 (Room 398) Chair: V.I. Burenkov
15:05	A.S. Mishchenko: Derivations of group algebras and Hochschild cohomology	V.G. Danilov: Generalized exponential type solutions to Kolmogorov–Feller equation: forward and backward in time motion, vanishing diffusion	E.I. Moiseev/D.A.Gulyaev: Completeness of perturbed systems of trigonometric functions in the space of Lebesgue integrable functions
15:40	J. Alvarez Lopez: A trace formula for foliated flows	S.Ya. Sekerzh-Zenkovich and A.A.Tolchennikov: Some applications of asymptotic solutions of Boussinesq type equations for the approximation of the 2011 tsunami mareograms from DART stations	T. Shaposhnikova: Sobolev multipliers and their applications to differential and integral operators

16:15–16:45   **Coffee break (next to Room 495a)**

	S4 (Room 495a) Chair: V.M. Manuilov	S5 (Room 485) Chair: A.Yu.Anikin	S6 (Room 398) Chair: L.E. Rossovskii
16:45	A.B. Lazarev: Strong homotopies of differential graded algebras and theorems of Hilbert–Riemann type	D.S. Minenkov: Semi-classical asymptotics for the two-dimensional radially symmetric Dirac equation	A.B. Muravnik: On absence of solutions of correlated-noise inequalities
17:05	Zhu Chaofeng: The Maslov index in symplectic Banach spaces	S.A. Sergeev: Asymptotics of the solution of explicit difference scheme for the wave equation with localized initial data	T.V. Sal'nikova: Steady-state motion of charged dust particles under gravitational forces and forces of inertia
17:25	Su Guangxiang: Lower bounds of Lipschitz constants on foliations	A.Yu. Anikin: Asymptotic solutions of stationary problems for linearized plasma equations	D. Choudhuri: Schrödinger–Poisson system involving a measure
17:45	V. Gasimov: Hochshild's method for describing the Mackenzie obstruction to the construction of a transitive Lie algebroid	A.I. Allilueva: Parametrix and asymptotics of rapidly varying solutions for linearized equations of gas dynamics	A.S. Demidov: Elliptic pseudo-differential boundary value problems and the inverse problem of magneto-electroencephalography
18:05	A.I. Shtern: A class of connected Lie groups admitting the complete description of all locally bounded finite-dimensional finally precontinuous pseudorepresentations	V.L. Chernyshev: Asymptotics for random walks on metric graphs	

Wednesday, November 7, 2018

	(Hall №1, 7th floor) Chair: S.Yu.Dobrokhotov
9:00	M.I. Katsnelson: Engineering of quantum Hamiltonians by high-frequency laser fields
9:50	A.G. Sergeev: Quantum Hall effect and noncommutative geometry

10:40–11:10   **Coffee break (RUDN canteen)**

	(Hall №1, 7th floor) Chair: A.G. Sergeev
11:15	A.T. Fomenko: Topological billiards and integrable Hamiltonian systems
12:05	Yu.S. Il'yashenko: Global bifurcations on the two-sphere

12:55–14:30   **Lunch (RUDN canteen)**

	S7 (Hall №1, 7th floor) Chair: Zhang Weiping	*S8* (Room 398) Chair: E. Schrohe	*S9* (Room 495a) Chair: V. Kolokoltsov
14:30	A. Gorokhovsky: Pairings for pseudodifferential symbols	G. Mendoza: Domains of elliptic first order complexes of cone operators	A.Ya. Helemskii: Multi-normed spaces based on non-discrete measures, their tensor products, and applications
15:05	A.B. Antonevich: C*-algebras generated by dynamical systems, and applications		V. Kolokoltsov: Fractional PDEs: origins, applications and recent advances
15:20		D. Grieser: Eigenvalues for adiabatic problems in the presence of conical singularities	
15:40	Yu.A. Kordyukov: Spectral geometry of generalized smooth distributions		M.L. Goldman: Optimal embeddings of generalized Bessel and Riesz potentials

16:15–16:45   **Coffee break (next to Room 495a)**

	S10 (Room 497) Chair: A.B. Antonevich	*S11* (Room 398) Chair: D. Grieser	*S12* (Room 495a) Chair: A.A.Tolchennikov
16:45	I. Androulidakis: A Baum–Connes conjecture for singular foliations and its use	B. Vertman: The resolvent expansion of geometric operators on stratified spaces	H. Gacky/R. Brodnicka: Asymptotic stability of an evolutionary nonlinear Boltzmann-type equation
17:05	A.A. Arutyunov: Derivations on group algebras		
17:25	A. Alekseev: Cohomology of n-categories and derivations in group algebras	V.S. Kalnitsky: Phase flow over 0-singularity	M.V. Demina: Finding algebraic invariants and algebraically invariant solutions
17:45	D. Millionshchikov: Klein–Gordon equation and growth of Lie algebras of vector fields	S. Burian: Motion without stopping on manifolds with singularities	M.V. Kukushkin: Some phenomena in the behavior of eigenvalues of differential operators of fractional order
18:05	A.Yu.Pirkovskii: Dense quasi-free subalgebras of the Toeplitz algebra	V.B. Vasilyev: Pseudo-differential operators, equations and elliptic boundary value problems	D. Singh: Study of some general classes of estimators for estimating population mean in compromised imputation

	Special session on Maslov's approach to thermodynamics (Moscow State University, Room 13-24) Chair: A.S.Mishchenko
16:45	V.E.Nazaikinskii: Statistical Physics and Some Problems of Number Theory

Thursday, November 8, 2018

	(Hall №1, 7th floor) Chair: E. Schrohe
9:00	J. Brüning: The equivariant Atiyah–Patodi–Singer theorem
9:50	A.I. Shafarevich: Laplacians and wave equations on two-dimensional polyhedra

10:40–11:10	**Coffee break (RUDN canteen)**

	(Hall №1, 7th floor) Chair: A.I. Shafarevich
11:15	J. Ecalle: Singular and singularly perturbed differential systems and their triple resurgence regime
12:05	A.A. Shkalikov: On perturbations of self-adjoint and normal operators: analytical aspects

12:55–14:30	**Lunch (RUDN canteen)**

	S13 (Hall №1, 7th floor) Chair: J. Brüning	*S14* (Room 497) Chair: I. Astashova	*S15* (Room 399) Chair: A.I. Nazarov
14:30	B. Gramsch: Complex homotopy principle of Grauert and Gromov for algebras of pseudodifferential operators	A.M. Denisov: Existence of solution to an inverse problem for quasi-linear hyperbolic equation	V.I. Burenkov: Stability estimates for the eigenvalues of higher order elliptic operators upon domain variation
15:05	E. Schrohe: Analytic and algebraic indices of elliptic operators associated with quantized canonical transformations	M. Kumar: Numerical solution of elliptic partial differential equations	Yu.E. Gliklikh: On existence of time-global solutions for parabolic equations
15:40	L.E. Rossovskii: Elliptic functional differential equation with contracted and shifted argument	I. Astashova: On atypicality of power-law solutions to highly superlinear Emden–Fowler type equations	A.I. Nazarov: On fractional Neumann Laplacians in the half-spaces

16:15–16:25	**Break (no coffee, sorry)**

	S16 (Room 497) Chair: S.Yu. Dobrokhotov	***Round Table and Memorial Session dedicated to Boris Sternin and his scientific legacy*** (Room 495a)	*S17* (Room 399) Chair: V.V. Vedushkina
16:25	M. Rouleux: Quasi-classical quantum maps of semi-hyperbolic type	Chair: A.S.Mishchenko	G.I. Sharygin: Bruhat order and the symmetric Toda flow on real Lie groups
16:45	A.A. Tolchennikov: Asymptotics of the solution of the Klein–Gordon equation with localized initial conditions	Brief insights into various aspects of Boris Sternin's research by A.S. Mishchenko, V.E. Shatalov, E. Schrohe, A.G. Kyurkchan, A.Yu.Savin, and others. Personal memories.	V.V. Vedushkina: The non-trivial Liouville foliation of a three-dimensional torus
17:05	K. Reijnders: Semiclassical theory of electronic Veselago lensing in graphene		
17:25	J. Rowlett: How to hear the corners of a drum		

18:00–21:00	**Conference Dinner (RUDN canteen)**

Friday, November 9, 2018

	(Hall №1, 7th floor) Chair: P.M. Akhmetev
9:00	Zhang Weiping: Positive scalar curvature on foliations
9:50	S.Yu. Dobrokhotov: Lagrangian manifolds related to Bessel functions, and their applications

10:40–11:10　　　　　　　　**Coffee break (RUDN canteen)**

	(Hall №1, 7th floor) Chair: S.Yu. Dobrokhotov
11:15	A.L. Skubachevskii: Stationary and nonstationary solutions of mixed problems for Vlasov–Poisson equations
12:05	V.V. Lychagin: On classification of the second order differential operators and differential equations

12:55–14:30　　　　　　　　**Lunch (RUDN canteen)**

	S18 (Room 495a) Chair: A.S. Mishchenko	*S19* (Room 497) Chair: N.N. Nefedov	*S20* (Room 485) Chair: B. Tirozzi
14:30	P.M. Akhmetev: A remark on the Mahowald elements and on iterated desuspension in the stable homotopy groups of spheres	Yu.A. Alkhutov/M.D. Surnachev: Regularity of a boundary point for the p(x)-Laplacian	A.P. Kiselev: Simple localized solutions of the wave equation
15:05	T. Popelensky: Combinatorial Ricci flow for degenerate metrics	N.N. Nefedov: Propagation and blowing-up of non-plane fronts in Burgers-type equations with modular advection	M.M. Malamud: To spectral theory of Schrödinger and Dirac operators with point interactions
15:40	A.A. Fedotov: Quasiclassical asymptotics of solutions to difference equations with two close turning points	A.V. Faminskii: Large-time decay of solutions to the Zakharov–Kuznetsov equation	B. Tirozzi: Solutions of the equations describing the plasma in a gas discharge

16:15–16:45　　　　　　　　**Coffee break (next to Room 495a)**

	S21 (Room 495a) Chair: V. Gasimov	*S22* (Room 497) Chair: A.A. Fedotov	*S23* (Room 485) Chair: A.V. Faminskii
16:45	Yu Jianqing: Fried conjecture for Morse–Smale flow	D. Mazlum: Publishing Mathematics with Birkhäuser	A.G. Kyurkchan: The use of a priori analytic information to solve boundary-value problems of diffraction theory
17:05	J.R. Oliveira: Whitney-Sullivan constructions for transitive Lie algebroids: the polynomial case	E. Vybornyi: Asymptotic of tunneling for Schrödinger equation with hyperbolic frequency resonance	
17:25	Li Xiaoyu: Homotopy classification of transitive Lie algebroids	R. Gaydukov: Derivation of the Benjamin–Ono equation at construction of the triple-deck structure in problems of a fluid flow along a plate with small irregularities on the surface	

17:55　　　　　　　　**Closing Ceremony (Room 497)**