

Topology, Geometry, and Dynamics: Rokhlin Memorial January 11-16, 2010. Saint Petersburg, Russia

MONDAY, 11

9:00-10:00	Registration
10:00-10:15	Opening ceremony: A. Vershik

Plenary session

<i>Chairman: Sergei Pilyugin</i>			
10:15-11:00	Buchstaber Victor	Ring of convex polytopes and applications	
11:00-11:20	<i>Coffee break</i>		
11:20-12:05	Ilyashenko Yulij	Thick and bony attractors	
12:10-12:55	Vershik Anatoly	Rokhlin's ideas in ergodic theory and its modern development	
13:00-15:00	<i>Lunch</i>		
	Topology	Dynamical systems	
	<i>Chairman: Victor Buchstaber</i>		<i>Chairman: Yulij Ilyashenko</i>
15:00-15:45	Mishchenko Alexander	Signature of manifolds with proper action of a discrete group and the Hirzebruch type formula	Lemanczyk Mariusz Rokhlin cocycles and the problem of multipliers in ergodic theory
15:50-16:35	Duzhin Sergei	Short circuit closure of braids, Conway polynomial and Drinfeld associator.	Diaz Lorenzo Robust cycles (homoclinic tangencies and heterodimensional cycles)
16:35-16:55	<i>Coffee break</i>		
16:55-17:20	Podkorytov Semen	Order of a homotopy invariant in the stable case	Volk Denis Thin attractors
17:25-17:50	Kustarev Andrei	Almost complex quasi-toric manifolds	Kudryashov Yury Bony attractors in random and smooth dynamical systems
17:55-18:20	Erokhovets Nickolai	Buchstaber invariant of simple polytopes	Kolutsky Grisha The Hilbert-Smale problem: some upper estimates on the number of limit cycles
18:30-20:30	<i>Welcome party</i>		

TUESDAY, 12

	Topology		Geometry	
	<i>Chairman: Alexander Mishchenko</i>		<i>Chairman: Panina Gaiane</i>	
10:20-11:05	Papadopoulos Athanase	Actions of mapping class groups	Tarasov Alexey (with Musin Oleg)	The strong thirteen spheres problem
11:05-11:25	<i>Coffee break</i>			
11:25-12:10	Musin Oleg	On Borsuk-Ulam type theorems for manifolds with involutions	Birbrair Lev	Metric properties of singularities of complex algebraic surfaces
12:15-13:00	Manturov Vassily	Parity in knot theory and low-dimensional topology	Burago Dmitri	On topological aspects of the Dvoretzky theorem
13:00-15:00	<i>Lunch</i>			
	Topology		Dynamical systems	
	<i>Chairman: Athanase Papadopoulos</i>		<i>Chairman: Anatoly Vershik</i>	
15:00-15:45	Orlov Dmitry	Triangulated categories of singularities, D-branes in LG-models, and mirror symmetry	Thouvenot Jean-Paul	Joinings and weak convergence of nonconventional ergodic averages
15:50-16:35	Mikhailov Roman	Derived functors in homotopy theory	Oseledets Valery	The entropy of Erdos measure for m-nacci number
16:35-16:55	<i>Coffee break</i>			
16:55-17:20	Ilyutko Denis	Framed 4-valent graphs: Euler tours, Gauss circuits and rotating circuits	Weiss Barak	Rigidity of group actions on homogeneous spaces, III
-17:40				
17:45-18:10			Prikhodko Alexander	On mixing local rank one systems and applications
18:15-18:35			Saltykov Petr	Special ergodic theorem

WEDNESDAY, 13

	Geometry		Dynamical systems	
	<i>Chairman: Oleg Musin</i>		<i>Chairman: Lorenzo Diaz</i>	
9:30-10:15	Panina Gaiane	Singularities of saddle spheres		
10:20-11:05	Dolbilin Nikolai	Parallelohedra: classic and new results, the Voronoi problem	Bogdanov Rifkat (with Bogdanov M.)	Nonlocal integrals in quantum mechanics
11:05-11:25	Coffee break			
	<i>Chairman: Nikolai Dolbilin</i>		<i>Chairman: Lorenzo Diaz</i>	
11:25-11:50	Garber Alexey	On equivalence classes of separated nets	Osipov Aleksei	Lipschitz periodic shadowing
11:55-12:20	Glazyrin Alexey	Lower bounds for the cube simplicity	Kryzhevich Sergey	C-bifurcation and chaos in discontinuous system
12:25-12:50	Magazinov Alexander	On the number of bi-Lipschitz classes of Delone sets		
13:00-15:00	Lunch			
	Topology		Geometry	
	<i>Chairman: Nikita Netsvetaev</i>		<i>Chairman: Nikolai Vavilov</i>	
15:00-15:45	Zhubr Alexey	3-Dimensional knots in 2-connected closed 6-manifolds	Zograf Peter	Large genus asymptotics of the Weil-Petersson volumes
15:50-16:35	Muranov Yuri	Surgery on filtered manifolds	Panin Ivan	Riemann-Roch Theorems for oriented cohomology (after I.Panin and A.Smirnov)
16:35-16:55	Coffee break			
	<i>Chairman: Alexey Zhubr</i>			<i>Chairman: Nikolai Vavilov</i>
16:55-17:40	Sheinman Oleg	Lax operator algebras and Hamiltonian integrable hierarchies	Zvonilov Victor	Deformations of real trigonal curves of type I on ruled surfaces
17:45-18:10	Akhmet'ev Petr	Asymptotic invariants of links	Chevallier Benoit	M-curves of small degree with many nests
18:15-18:40	Eichhorn Juergen	Analytic torsion for open manifolds	Gusev Gleb	Monodromy zeta-function of a polynomial on a complete intersection and Newton polyhedra

THURSDAY, 14

Plenary session

Chairman: Anatoly Vershik

09:30-10:15	Oleg Viro	Basic notion of the tropic geometry. Presentation via Internet
10:15-10:35	<i>Coffee break</i>	
10:35-11:20	Smirnov Stanislav	On a self-avoiding walk in the plane
11:45-12:10	Kislyakov Sergei	(Non)isomorphism of Banach spaces of smooth functions. A survey
12:30-13:30	<i>Lunch (for those who go on excursion)</i>	
13:30-16:30	<i>Guided tour around St.Petersburg</i>	
18:00-21:00	<i>Conference Dinner</i>	

FRIDAY, 15

The program for Friday and Saturday is subject to change.

	Geometry		Dynamical systems	
9:30-10:15	Vinogradov Alexander	Algebraic topology of commutative algebras	Leonov Gennady, Reitmann Volker, Slepukhin Alexander	Upper Hausdorff dimension estimates for the global attractors of nonautonomous systems
10:20-11:05	Shchepin Evgeny	V. I. Arnold's problem on dimension raising mappings of cubes	Vodopyanov Sergey (with Karmanova Maria)	Carnot-Caratheodory spaces and foundations of geometric measure theory
11:05-11:25	<i>Coffee break</i>			

11:25-11:50	Bauman Konstantin	In search of the minimal Peano curve	Bibikov Yurii	Invariant tori of systems with cubic restoring force
11:55-12:20	Kalnitsky Vyacheslav	The Kobayashi theorem extension	Florinskiy Alexander	Discrete dynamical systems and a conversion of Hutchinson's theorem
12:25-12:50	Zinchenko Vera	Smooth almost Δ -bundles with polyhedron as their base		
13:00-15:00	Lunch			
	Geometry		Dynamical systems	
15:00-15:45	Skopenkov Arkadiy (with Crowley Diarmuid)	A classification of embeddings $S^1 \times S^3 \rightarrow R^7$	Gurevich Boris (with Komech Sergey)	On geometric meaning of entropy for some dynamical systems
15:50-16:35	Cohen Fred	Generalized moment-angle complexes	Luzzatto Stefano	Towers in dynamics
16:35-16:55	Coffee break			
16:55-17:40	Vavilov Nikolai	New versions of localization method, and applications	Osipenko George	Invariant measures and symbolic image
17:45-18:10	Gugnin Dmitry	The graded theory of Frobenius n -homomorphisms, and applications	Jabbarov Ilgar	On the convergence exponent on the singular integral in the two-dimensional Tarry problem
18:15-18:40	Zheglav Alexander	Higher KP systems and formal punctured ribbons	Schurov Ilya	Canard cycles in generic slow-fast systems on the two-torus

SATURDAY, 16

Topology

9:30-10:15	Repovs Dusan	Applications of controlled surgery in dimension 4
10:20-11:05	Mokhov Oleg	On realization of flat and non-flat Frobenius manifolds as submanifolds in pseudo-Euclidean space
11:05-11:25		<i>Coffee break</i>
11:25-12:10	Melikhov Sergey	Combinatorics of combinatorial topology
12:15-12:40	Podkorytov Semen	Order of a homotopy invariant in the stable case
12:45-13:10	Stepanova Marina	Virtual transformations of spherical Gauss diagrams

Dynamical systems and miscellaneous

9:30-10:15	Troitsky Evgenij	Reidemeister numbers: dynamics, algebra, and analysis
10:20-11:05		reserve
11:05-11:25		<i>Coffee break</i>
11:25-11:50	Rerikh Konstantin	Algebraic integrability of functional equations and dynamical systems defined by birational mappings
11:55-12:20	Gelfert Katrin	Non-hyperbolic structures of geodesic flows on rank-1 surfaces
12:25-12:50	Smirnova-Nagnibeda Tatiana	Self-similar groups and invariant measures
12:55-13:20	Pevzner Misha	Some aspects of the covariant quantization of symmetric spaces
13:30		<i>Closing ceremony</i>