

**International conference**  
**"Algebraic Topology, Combinatorics, and Mathematical Physics"**  
**on occasion of Victor Buchstaber's 75th birthday**

**THURSDAY, 24 MAY**

**Steklov Mathematical Institute (Gubkina str., 8)**

9:00-10:00	<b>Registration, 9<sup>th</sup> floor</b>	
<b>Plenary lectures, Conference hall, 9<sup>th</sup> floor</b>		
10:00-10:50	<b>Anatoly Vershik.</b> <i>Asymptotic of RSK-correspondence and new kind of laws of large numbers for Bernoulli scheme</i>	
10:50-11:20	<b>Coffee break, 9<sup>th</sup> floor</b>	
11:20-12:10	<b>Mikiya Masuda.</b> <i>Generic torus orbit closures in Schubert varieties</i>	
12:20-13:10	<b>Rade Živaljević.</b> <i>Cyclohedron and Kantorovich-Rubinstein polytopes</i>	
13:10-15:00	<b>Lunch</b>	
<b>Invited lectures</b>		
	<b>Conference hall, 9<sup>th</sup> floor</b>	<b>Room 530, 5<sup>th</sup> floor</b>
15:00-15:40	<b>Ivan Dynnikov.</b> <i>Exchange classes of rectangular diagrams, Legendrian knots, and the knot symmetry group</i>	<b>Vladimir Dragović.</b> <i>Billiards within quadrics and Chebyshev type polynomials</i>
15:50-16:30	<b>Vladimir Vershinin.</b> <i>Twisted homology and twisted simplicial groups</i>	<b>Hovhannes Khudaverdian.</b> <i>Homotopy Poisson brackets and thick morphisms</i>
16:30-17:00	<b>Coffee break, 9<sup>th</sup> floor</b>	
17:00-17:40	<b>Svjetlana Terzić.</b> <i>Toric topology of the complex Grassmann manifolds and <math>(2n,k)</math>-manifolds</i>	<b>Sergey Melikhov.</b> <i>Lim colim versus colim lim</i>
17:50-18:30	<b>Dmitry Gugnin.</b> <i>Lower bound for the degree of a branched covering of a manifold</i>	<b>Elena Bunkova.</b> <i>Hirzebruch functional equations</i>

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**FRIDAY, 25 MAY**

**Skolkovo Institute of Science and Technology (Skolkovo Innovation Center)**

<b>Plenary lectures, Blue building, Nobel str. 3, 3<sup>rd</sup> floor, Multifunctional zone 303</b>		
10:00-10:50	<b>Igor Krichever.</b> <i>Linear operators with self-consistent potential</i>	
10:50-11:20	<b>Coffee break</b>	
11:20-12:10	<b>Anthony Bahri.</b> <i>On the integral cohomology of orbifolds</i>	
12:20-13:10	<b>Fuquan Fang.</b> <i>Geometry and topology of non-negatively curved manifolds</i>	
13:10-15:00	<b>Lunch</b>	
<b>Invited lectures</b>		
	<b>Blue building, Nobel str. 3, Multifunctional zone 303</b>	<b>Red building, Nobel str. 1, 3<sup>rd</sup> floor, room 351</b>
15:00-15:40	<b>Jelena Grbić.</b> <i>LS-category of moment-angle manifolds and Massey products</i>	<b>Sabir Gusein-Zade.</b> <i>Algebraic links in the Poincaré sphere and the Alexander polynomials</i>
15:50-16:30	<b>Andrey Vesnin.</b> <i>On zeros of Yamada polynomial for spatial graphs</i>	<b>Dmitry Millionshchikov.</b> <i>Polynomial Lie algebras and growth rates of their subalgebras</i>
16:30-17:00	<b>Coffee break, Blue building, Nobel str. 3, 3<sup>rd</sup> floor, Multifunctional zone 303</b>	
17:00-17:40	<b>Krzysztof Pawałowski.</b> <i>Smooth actions of compact Lie groups on complex projective spaces</i>	<b>Theodore Voronov.</b> <i>Microformal geometry and homotopy algebras</i>
17:50-18:30	<b>Andrey Kustarev.</b> <i>Moment-angle manifolds and linear programming</i>	<b>Malkhaz Bakuradze.</b> <i>All extensions of <math>C_2</math> by <math>C_2^n \times C_2^n</math> are good for the Morava K-theory</i>

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**SATURDAY, 26 MAY**

**Skolkovo Institute of Science and Technology (Skolkovo Innovation Center)**

<b>Plenary lectures, Blue building, Nobel str. 3, 3<sup>rd</sup> floor, Multifunctional zone 303</b>		
10:00-10:50	<b>Sergei Matveev.</b> <i>New aspects of complexity theory for 3-manifolds</i>	
11:00-11:50	<b>Jie Wu.</b> <i>Simplicial James-Hopf map and decompositions of the unstable Adams spectral sequence for suspensions</i>	
11:50-12:30	<b>Coffee break</b>	
<b>Invited lectures</b>		
	<b>Blue building, Nobel str. 3, Multifunctional zone 303</b>	<b>Red building, Nobel str. 1, 3<sup>rd</sup> floor, room 351</b>
12:30-13:10	<b>Ivan Arzhantsev.</b> <i>Log terminal singularities, platonic tuples and iteration of Cox rings</i>	<b>Alexey Glutsyuk.</b> <i>On model of Josephson effect, constrictions and transition matrix of double confluent Heun equation</i>
13:20-14:00	<b>Dmitry Timashev.</b> <i>Orbits in real loci of spherical homogeneous spaces</i>	<b>Alexander Dranishnikov.</b> <i>Surgery and cell-like maps</i>

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**MONDAY, 28 MAY**

**Steklov Mathematical Institute (Gubkina str., 8)**

<b>Plenary lectures, Conference hall, 9<sup>th</sup> floor</b>		
10:00-10:50	<b>Iskander Taimanov.</b> <i>On the cohomology rings of Riemannian manifolds with special holonomy</i>	
10:50-11:20	<b>Coffee break, 9<sup>th</sup> floor</b>	
11:20-12:10	<b>Askold Khovanskii.</b> <i>Newton polygon method and solvability of polynomial equations by quadratures</i>	
12:20-13:10	<b>Michael Tsfasman.</b> <i>Dense sphere packings: state of the art and algebraic geometry constructions</i>	
13:10-15:00	<b>Lunch</b>	
<b>Invited lectures</b>		
	<b>Conference hall, 9<sup>th</sup> floor</b>	<b>Room 530, 5<sup>th</sup> floor</b>
15:00-15:40	<b>Daisuke Kishimoto.</b> <i>Relative phantom maps</i>	<b>Zoran Rakić.</b> <i>Path integrals on real, p-adic, and adelic spaces</i>
15:50-16:30	<b>Stephen Theriault.</b> <i>The homotopy theory of polyhedral products associated with flag complexes</i>	<b>Alexey Ustinov.</b> <i>An elementary approach to Somos-4 sequences</i>
16:40-17:20	<b>Dmitry Talalaev.</b> <i>Towards integrability structure in 3D Ising model</i>	<b>Alexei Penskoi.</b> <i>Isoperimetric inequalities for Laplace eigenvalues on the sphere and the real projective plane</i>
17:30-	<b>Reception, 9<sup>th</sup> floor</b>	

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**TUESDAY, 29 MAY**

**Steklov Mathematical Institute (Gubkina str., 8)**

Plenary lectures, Conference hall, 9 <sup>th</sup> floor		
10:00-10:50	<b>Nikolay Dolbilin.</b> <i>Locally isometric Delone sets</i>	
10:50-11:20	Coffee break, 9 <sup>th</sup> floor	
11:20-12:10	<b>Sergei Lando.</b> <i>Integrability property of polynomial graph invariants</i>	
12:20-13:10	<b>Ernest Vinberg.</b> <i>On free algebras of automorphic forms</i>	
13:10-15:00	Lunch	
Invited lectures		
	Conference hall, 9 <sup>th</sup> floor	Room 530, 5 <sup>th</sup> floor
15:00-15:40	<b>Yael Karshon.</b> <i>Topology of complexity one quotients</i>	<b>Evgeny Fominykh.</b> <i>On the Matveev's complexity of knot complements in thickened surfaces</i>
15:50-16:30	<b>Vassily Gorbounov.</b> <i>Schubert calculus and quantum integrable systems</i>	<b>Andrei Malyutin.</b> <i>Poincaré's rotation number in dynamics and knot theory</i>
16:30-17:00	Coffee break, 9 <sup>th</sup> floor	
17:00-17:40	<b>Andrey Mironov.</b> <i>On one-point commuting difference operators of rank one</i>	<b>Oleg Musin.</b> <i>Circle actions on 4-manifolds</i>
17:50-18:30	<b>Suyoung Choi.</b> <i>Cohomology formulae of real toric spaces</i>	<b>Gaiane Panina.</b> <i>Diagonal complexes</i>
18:40-19:20		<b>Mikhail Gorsky.</b> <i>Polytopal realizations of cluster, subword and accordion complexes and representation theory</i>

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**WEDNESDAY, 30 MAY**

**Steklov Mathematical Institute (Gubkina str., 8)**

Plenary lectures, Conference hall, 9 <sup>th</sup> floor		
10:00-10:50	<b>Dong-Youp Suh.</b> <i>Algebraic and geometric properties of flag Bott-Samelson varieties and applications to representations</i>	
10:50-11:20	Coffee break, 9 <sup>th</sup> floor	
11:20-12:10	<b>Alexander Veselov.</b> <i>From combinatorics to geometry of polyhedra via spectral graph theory</i>	
12:20-13:10	<b>Alexander Mikhailov.</b> <i>Integrable Hamiltonian systems naturally defined by symmetric powers of algebraic curves</i>	
13:10-15:00	Lunch	
	Invited lectures Conference hall, 9 <sup>th</sup> floor	Seminar on Toric Topology and Homotopy Theory for young researchers Room 530, 5 <sup>th</sup> floor
15:00-15:40	<b>Min Yan.</b> <i>Converse of Smith theory</i>	<b>Jongbaek Song.</b> <i>GKM-orbifolds and their equivariant cohomology rings</i>
15:50-16:30	<b>Petr Grinevich.</b> <i>From real regular multisoliton solutions of KP-II to finite-gap solutions</i>	<b>Ingrid Membrillo-Solis.</b> <i>Homotopy decompositions of gauge groups</i>
16:30-17:00	Coffee break, 9 <sup>th</sup> floor	
17:00-17:40	<b>Vladimir Grujić.</b> <i>Combinatorial Hopf algebras and generalized permutohedra</i>	<b>Seonjeong Park.</b> <i>Betti numbers of real toric manifolds arising from a graph</i>
17:50-18:30	<b>Yury Ustinovskiy.</b> <i>Uniformization of complex manifolds and maximum principle for tensors</i>	<b>Ekaterina Shemyakova.</b> <i>Obstructions to factorization of differential operators on the algebra of densities on the line</i>

**International seminar on Toric Topology and Homotopy Theory  
for young researchers  
Steklov Mathematical Institute (Gubkina str., 8)**

	<b>Thursday, 31 May Room 530, 5<sup>th</sup> floor</b>	<b>Friday, 1 June Room 530, 5<sup>th</sup> floor</b>
10:00-10:30	<b>Jeffrey Carlson.</b> <i>The equivariant cohomology and K-theory of a cohomogeneity-one action</i>	<b>Ruizhi Huang.</b> <i>Homotopy types of gauge groups over high dimensional manifolds</i>
10:40-11:10	<b>Ivan Limonchenko.</b> <i>On the new families of flag nestohedra arising in toric topology</i>	<b>Taekgyu Hwang.</b> <i>The Gromov width of generalized Bott manifolds</i>
11:10-11:30	<b>Coffee break, Room 530, 5<sup>th</sup> floor</b>	
11:30-12:00	<b>Abigail Linton.</b> <i>Massey products in toric topology</i>	<b>Hideya Kuwata.</b> <i>Toric manifolds over an n-cube with one vertex cut</i>
12:10-12:40	<b>Semyon Abramyan.</b> <i>Iterated higher Whitehead products in topology of moment-angle complexes</i>	<b>Artem Kotelsky.</b> <i>Khovanov homology via immersed curves in the 4-punctured sphere</i>
12:50-13:20	<b>Soumen Sarkar.</b> <i>Equivariant K-theory of toric orbifolds</i>	<b>Jiyeon Moon.</b> <i>Projective toric manifolds and wedge operation</i>
13:20-15:00	<b>Lunch</b>	
15:00-15:30	<b>Djordje Baralić.</b> <i>Toric topology of balanced simplicial complex</i>	<b>Fedor Pavutnitsky.</b> <i>Homotopical approach to group extensions and homology of morphisms</i>
15:40-16:10	<b>Xin Fu.</b> <i>Simplicial G-complexes and representation stability of polyhedral products</i>	<b>Alexey Rukhovich.</b> <i>On the numbers of fullerenes</i>
16:10-16:30	<b>Coffee break, Room 530, 5<sup>th</sup> floor</b>	
16:30-17:00	<b>Sho Hasui.</b> <i>On the quasitoric bundles</i>	<b>Takashi Sato.</b> <i>On the coinvariant rings of pseudo-reflection groups</i>
17:10-17:40	<b>Tatsuya Horiguchi.</b> <i>The cohomology rings of Hessenberg varieties and Schubert polynomials</i>	<b>Tseleung So.</b> <i>Classification of gauge groups over 4-manifolds</i>
17:50-18:20	<b>Yakov Veryovkin.</b> <i>Polyhedral products and commutator subgroups of right-angled Artin and Coxeter groups</i>	<b>Grigory Solomadin.</b> <i>Totally normally split quasitoric manifolds</i>