



**Programme of The International Conference  
«Geometry days in Novosibirsk, 2012»,  
devoted to the 100-th anniversary of  
Aleksandr Danilovich Aleksandrov**

**August, 30 (Thursday)**

<b>8:00 – 9:00</b>	Registration
<b>9:00 – 15:00</b>	Plenary talks
<b>9:00 – 9:50</b>	<b>Yu. G. Reshetnyak, S. S. Kutateladze (Novosibirsk). Life and works of A. D. Aleksandrov</b>
<b>10:00 – 10:50</b>	<b>S. V. Matveev (Chelyabinsk). Bialgebras and three- dimensional manifolds</b>
<b>10:50 – 11:10</b>	Coffee break
<b>11:10 – 12:00</b>	<b>S. K. Vodopyanov (Novosibirsk). Geometry of vector fields and regularity of solutions of nonlinear subelliptic equations</b>
<b>12:10 – 13:00</b>	<b>N. J. Wildberger (Sydney, Australia). Rational trigonometry of a tetrahedron</b>
<b>13:00 – 14:10</b>	Lunch
<b>14:10 – 15:00</b>	<b>I. Kh. Sabitov (Moscow). New integral formulas for compact surfaces and some of their applications</b>
<b>15:10 – 18:20</b>	Talks in sections A, B, C

**Section A**

<b>15:10 – 15:35</b>	<b>V. V. Vershinin (Monpellier, France; Novosibirsk). On Vassiliev invariants of braid groups of the sphere</b>
<b>15:40 – 16:05</b>	<b>M. Mulazzani (Bologna, Italy). Compact 3-manifolds via 4-colored graphs</b>
<b>16:05 – 16:25</b>	Coffee break
<b>16:25 – 16:50</b>	<b>E. A. Fominykh (Chelyabinsk). Complexity of hyperbolic 3-manifolds</b>

- 16:55 – 17:20**                      **E. A. Sbrobova (Chelyabinsk). Virtual manifolds of low-complexity**
- 17:25 – 17:50**                      **O. G. Bagina (Kemerovo). Convex pentagons tiling the plane**

#### Section B

- 15:10 – 15:35**                      **A. V. Greshnov (Novosibirsk). About Gromov's theorem of homogeneous nilpotent approximation**
- 15:40 – 16:05**                      **D. V. Isangulova (Novosibirsk). 1-quasiconformal maps on roto-translation group**
- 16:05 – 16:25**                      Coffee break
- 16:25 – 16:50**                      **N. A. Evseev (Novosibirsk). Invariance of weighted Sobolev spaces**
- 16:55 – 17:20**                      **S. G. Basalaev (Novosibirsk). Poincare inequality on Carnot manifolds with  $C^1$ -smooth vector fields**
- 17:25 – 17:50**                      **M. V. Tryamkin (Novosibirsk). ACL-property of quasiconformal mappings of Carnot-Caratheodory spaces and BMO-functions**
- 17:55 – 18:20**                      **M. B. Karmanova (Novosibirsk). Minimal surfaces on Carnot groups**

#### Section C

- 15:10 – 15:35**                      **V. V. Aseev (Novosibirsk). On stability of a certain geometric criterion of quasiconformality in the plane**
- 15:40 – 16:05**                      **K. V. Storozhuk (Novosibirsk). Kroneker sets and isometries of the space  $C(M)$ , tightly wrap the torus**
- 16:05 – 16:25**                      Coffee break
- 16:25 – 16:50**                      **O. P. Gladunova (Barnaul). On the spectrum of curvature operator of conformal (semi-) flat Riemannian metrics**

## August, 31 (Friday)

9:00 – 15:00	Plenary talks
9:00 – 9:50	<b>S. K. Lando (Moscow). Geometry of spaces of rational functions</b>
10:00 – 10:50	<b>I. A. Dynnikov (Moscow). Counting intersections of normal curves</b>
10:50 – 11:10	Coffee break
11:10 – 12:00	<b>A. A. Gaifullin (Moscow). Combinatorial realisation of cycles and simplicial volume</b>
12:10 – 13:00	<b>A. B. Zheglov (Moscow). Isospectral deformations of partial differential operators and algebraic varieties</b>
13:00 – 14:10	Lunch
14:10 – 15:00	<b>S. V. Ivanov (St. Petersburg). On the discretization in Riemannian geometry</b>
15:10 – 18:20	Talks in sections A, B, C
Section A	
15:10 – 15:35	<b>E. Molnár (Budapest, Hungary). Visualization of the 8 homogeneous 3-geometries and the Thurston conjecture</b>
15:40 – 16:05	<b>V. V. Slavsky (Khanty-Mansiysk). Support functions of the convex polyhedron in Lobachevsky's space</b>
16:05 – 16:25	Coffee break
16:25 – 16:50	<b>V. V. Chueshev (Kemerovo). Prym differentials on finite Riemann surfaces</b>
16:55 – 17:20	<b>T. A. Kozlovskaya (Magadan). Everitt hyperbolic icosahedral manifolds</b>
17:25 – 17:50	<b>A. V. Masley (Novosibirsk). On sufficient conditions of discreteness for groups of Mobius transformations with two generators</b>

## Section B

<b>15:10 – 15:35</b>	<b>Yu. S. Volkov (Novosibirsk). Preserving geometric properties of functions in the approximation by splines</b>
<b>15:40 – 16:05</b>	<b>A. A. Egorov (Novosibirsk). Regularity and mashing of singularities for solutions of differential inequalities with zero-Lagrangian</b>
<b>16:05 – 16:25</b>	Coffee break
<b>16:25 – 16:50</b>	<b>M. V. Korobkov (Novosibirsk). Morse--Sard theorem for Sobolev functions and applications</b>
<b>16:55 – 17:20</b>	<b>D. A. Trotsenko (Novosibirsk). One extremal class of domains and Alexandrov's hypothesis</b>
<b>17:25 – 17:50</b>	<b>S. V. Selivanova (Novosibirsk). Tangent cone to locally contractible space</b>

## Section C

<b>15:10 – 15:35</b>	<b>A. A. Husainov (Komsomolsk-on-Amur). Homology group of category of partly action of monoid</b>
<b>15:40 – 16:05</b>	<b>V. E. Lopatkin (Novosibirsk). Cohomology of free partially commutative monoids and their actions on the pointed set</b>
<b>16:05 – 16:25</b>	Coffee break
<b>16:25 – 16:50</b>	<b>A. K. Guts (Omsk). Intuitionistic Chronogeometry</b>
<b>16:55 – 17:20</b>	<b>Ya. A. Kopylov (Novosibirsk). The two-Square lemma and the connecting morphism in a preabelian category</b>
<b>17:25 – 17:50</b>	<b>N. A. Daurtseva (Kemerovo). On behavior of Nijenhuis tensor in 6-dimensional Heisenberg group</b>
<b>18:00 – 22:00</b>	Conference dinner

## **September, 1 (Saturday)**

<b>9:00 – 13:00</b>	Plenary talks
<b>9:00 – 9:50</b>	<b>M. Dehmer (Hall in Tirol, Austria). Location of zeros of Wiener polynomials</b>
<b>10:00 – 10:50</b>	<b>A. D. Mednykh (Novosibirsk). Area formulae for non-Euclidean polygons</b>
<b>10:50 – 11:10</b>	Coffee break
<b>11:10 – 12:00</b>	<b>I. V. Vyugin (Moscow). Holomorphic bundles and differential equations on the Riemann sphere</b>
<b>12:10 – 13:00</b>	<b>A. Z. Anan'in (Campinas, Brazil). Complex and real hyperbolic disc bundles over surfaces</b>
<b>13:10 – 14:05</b>	Section talks
<b>13:10 – 13:35</b>	<b>D. V. Egorov (Yakutsk). Riemannian Spin(7) holonomy manifold carries octonionic-Kahler structure</b>
<b>13:40 – 14:05</b>	<b>E. I. Shamaev (Yakutsk). Discrete geometric bisectors flow of convex polygons and the problem of its convergence</b>