

**Programme of The International Conference  
"Geometry days in Novosibirsk, 2011"**  
devoted to the 50-th anniversary of Geometry and topology chair,  
Novosibirsk State University

**September, 1 (Thursday)**

*8:00-9:00 registration*

9:00-9:50

***Yu.G. Reshetnyak***  
***(Novosibirsk)***

***Differential properties of one class of surfaces***

*10 min. break*

10:00-10:50

***V.E. Zakharov***  
***(Moscow)***

***Spaces of diagonal curvature and n-orthogonal coordinate systems***

*20 min. coffee*

11:10-12:00

***S.K. Godunov***  
***(Novosibirsk)***

***Thermodynamically consistent model of relativistic hydrodynamics***

*10 min. break*

12:10-13:00

***S.P. Tsarev***  
***(Krasnoyarsk)***

***Classical and modern results of integration theory of algebraic functions***

*60 min. lunch*

14:00-14:50

***D.S. Chelkak***  
***(St. Petersburg)***

***Conformal invariance in the critical Ising model: correlations and interfaces***

*10 min. break*

15:00-15:50

***V.P. Golubyatnikov***  
***(Novosibirsk)***

***Phase portraits of certain nonlinear dynamical systems in mathematical biology***

15:50-16:20

***E.Yu. Bun'kova***  
***(Moscow)***

***Krichever formal group and deformed Baker-Akhiezer function***

*20 min. coffee*

16:40-17:10

***Ya.V. Bazaikin***  
***(Novosibirsk)***

***Riemannian metrics with holonomy group  $G_2$  of cohomogeneity one***

17:10-17:40

***E.A. Fominykh***  
***(Chelyabinsk)***

***Exact values of complexity for infinite series of 3-manifolds***

17:40-18:00

***D.A. Slutskiy***  
***(Toulouse, France)***

***One necessary condition of flexibility for suspension in hyperbolic space***

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**September, 2 (Friday)**

9:00-9:50

**S.V. Matveev  
(Chelyabinsk)**

***Primary decompositions and Diamond Lemma***

*10 min. break*

10:00-10:50

**I.A. Dynnikov  
(Moscow)**

***Simplifying discs for rectangular diagrams***

*20 min. coffee*

11:10-12:00

**V.A. Sharafutdinov  
(Novosibirsk)**

***Calderon problem for exterior differential forms. The statement and the first results***

*10 min. break*

12:10-13:00

**S.K. Vodopyanov  
(Novosibirsk)**

***Metric geometry of Carnot-Caratheodory spaces and applications***

*60 min. lunch*

14:00-14:50

**P.I. Plotnikov  
(Novosibirsk)**

***Modeling hydroelastic waves and the Willmore functional***

*10 min. break*

15:00-15:50

**A.B. Zheglov  
(Moscow)**

***On the rings of commuting differential operators***

15:50-16:20

**D.V. Millionchikov  
(Moscow)**

***Variety of nilpotent Lie algebras: Rigid central extensions***

*20 min. coffee*

16:40-17:10

**A.P. Chupakhin  
(Novosibirsk)**

***Geometrical aspects of hydrodynamics on sphere***

17:10-17:40

**T.E. Panov  
(Moscow)**

***The intersections of quadrics, the moment-angle manifolds and Hamiltonian-minimal Lagrangian embeddings***

17:40-18:10

**A.E. Mironov  
(Novosibirsk)**

***Commuting selfadjoint differential operators and commutative Weyl subalgebras***

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**September, 3 (Saturday)**

9:00-9:50

**D. Repovš**  
**(Ljubljana, Slovenia)**

***The Bing-Borsuk and the Busemann Conjectures***

*10 min. break*

10:00-10:50

**A.D. Mednykh**  
**(Novosibirsk)**

***Geometry of knots and links***

*20 min. coffee*

11:10-12:00

**V.N. Berestovskiy**  
**(Omsk)**

***Zonal spherical functions on compact symmetric spaces of rank 1 and special functions***

*10 min. break*

12:10-12:40

**Yu.D. Burago**  
**(St. Petersburg)**

***Surfaces in normed spaces after D.Burago and S.Ivanov***

*80 min. lunch*

14:00-14:50

**E.E. Skurikhin**  
**(Vladivostok)**

***Cohomological dimension of categorical topological spaces***

*10 min. break*

15:00-15:50

**V.V. Verchinine**  
**(Montpellier, France)**

***Brunnian Braids on Surfaces***

15:50-16:20

**A.V. Zhubr**  
**(Syktyvkar)**

***Enumeration of three-dimensional knots in manifold  $S^3 \times S^3$  (classification up to diffeomorphism)***

*20 min. coffee*

16:40-17:10

**E.Yu. Emelyanov**  
**(Ankara, Turkey)**

***Geometry of Banach spaces and operator theory***

17:10-17:40

**V.Yu. Rovenski**  
**(Haifa, Israel)**

***Extrinsic Geometry of Codimension-one Foliations***

17:40-18:00

**Ya.V. Slavolyubova**  
**(Kemerovo)**

***The left-invariant pseudo-Einstein structure on a five-dimensional Lie groups***

**18:00. Dinner**

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**September, 4 (Sunday)**

9:00-9:50

**V.V. Chueshev  
(Kemerovo)**

***Prym differentials on variable Riemann surfaces***

*10 min. break*

10:00-10:50

**A.P. Kopylov  
(Novosibirsk)**

***On the unique determination of the conformal type of  
polygonal areas with related boundaries***

*20 min. coffee*

11:10-11:40

**V.A. Alexandrov  
(Novosibirsk)**

***Around A.D. Alexandrov theorem on the characterization  
of a sphere***

11:40-12:10

**A.A. Egorov and  
N.S. Orlova  
(Novosibirsk)**

***Stability of classes of solutions for differential equations  
with quasi-convex function and zero-Lagrangian***

12:10-12:40

**A.G. Kachurovskii  
(Novosibirsk)**

***Geometrical and physical meaning of martingale-ergodic  
theorem***

*80 min. lunch*

14:00-14:30

**A.V. Greshnov  
(Novosibirsk)**

***The geometry of cc-balls for Heisenberg groups***

14:30-15:00

**N.V. Abrosimov  
(Novosibirsk)**

***Volumes of non-Euclidean polyhedra***

15:00-15:30

**K.V. Storozhuk  
(Novosibirsk)**

***Symmetric invariant spaces of complexifications for  
linear operators***

*20 min. coffee*

15:50-16:20

**D.V. Egorov  
(Yakuts)**

***A new equation on Calabi-Yau metric in low dimensions***

16:20-16:50

**E.I. Shamaev  
(Yakutsk)**

***Convergence of the discrete analogue of the inverse  
mean curvature flow for strictly convex polygons***

16:50-17:10

**A.V. Maslei  
(Novosibirsk)**

***Two-generated isometry groups of the hyperbolic space:  
orbits of points and discreteness***