GEOMETRY DAYS
IN NOVOSIBIRSK — 2021,

Conference program

September 20, lecture for schoolchildren SESC NSU

08:30–10:10 **A.Yu. Buryak**, Euler's pentagonal number theorem.

September 21 (online meeting)

Talks of the NSU Chair of Geometry and Topology alumni

18:00–18:05 Opening of the conference.

18:05–18:40 **V.N. Berestovskiy**, On some geometric problems and results connected with the Chair of Geometry and Topology in NSU.

18:45–19:20 **Y.N. Yomdin**, Estimating high order derivatives of a smooth function through geometry and topology of its zero set.

19:25–20:00 **V.Yu. Rovenskii**, The Curve Shortening Flow in the Metric-Affine Plane.

20:05–20:40 **V.A. Sharafutdinov**, Gavrilov steady flows of ideal imcompressible fluid.

20:45–21:20 **V.V. Vershinin**, On homotopy braids.

September 22, conference hall 212, NSU

10:00–10:50 **A.I. Shafarevich**, Punctured Lagrangian manifolds, the Maslov canonical operator, and asymptotic solutions of pseudodifferential equations.

10:55–11:45 **A.Yu. Buryak**, Counting residueless meromorphic differentials on the Riemann sphere and the KP hierarchy

Coffee break (20 minutes)

12:05–12:55 **I.A. Dynnikov**, The Novikov gasket.

13:00–13:50 **D.O. Orlov**, Mirror symmetry, rational surfaces and elliptic pencils.

Lunch (100 minutes)

15:30–16:20 **S.O. Gorchinskiy**, Obstructions to existence of Picard – Vessiot extensions in differential Galois theory.

16:25–17:15 **A.A. Basalaev**, Mirror maps in Landau-Ginzburg models.

Coffee break

September 23, conference hall 212, NSU

10:00–10:50   **V.M. Manuilov**, An inverse semigroup of metrics on a double of a metric space.

10:55–11:45   **F.Yu. Popelenskii**, TBA.

Coffee break (20 minutes)

12:05–12:55   **A.A. Popov**, Introduction to modified theories of gravity.

13:00–13:50   **C.A. Shramov**, Automorphisms of algebraic surfaces.

Lunch (100 minutes)

September 23, Section A conference hall 212, NSU

15:30–15:50   **A.V. Tetenov, D.A. Drozdov**, Finiteness conditions and measure and dimension estimates for fractal cubes.

15:50–16:10   **T.A. Kozlovskaya**, The singular pure braid group.

Coffee break (20 minutes)

16:30–16:50   **O.P. Khromova**, On Cerbo's conjecture for homogeneous (pseudo) Riemannian manifolds of low dimension.

16:50–17:10   **A.A. Pavlova**, About Einstein equation of semi-symmetric connections on the three-dimensional metric Lie groups.

September 23, Section B conference hall 4109, NSU

15:30–15:50   **E.Yu. Bunkova**, Hyperelliptic sigma functions and polynomial dynamical systems.

15:50–16:10   **M.A. Cheshkova**, Bianchi transformation of the pseudosphere.

Coffee break (20 minutes)

16:30–16:50   **A.S. Golota**, Jordan property for groups of bimeromorphic selfmaps of compact Kaehler threefolds.

16:50–17:10   **V.A. Kyrov**, On the local extension of the group of parallel translations of three-dimensional space.

10:00–10:50 **Yu.A. Kordyukov**, Berezin – Toeplitz quantization on noncompact symplectic manifolds.

10:55–11:45 **A.Yu. Vesnin**, New invariant of virtual knots.

Coffee break (20 minutes)

12:05–12:55 **M.B. Skopenkov**, Feynman Checkers: Quantum Field Theory on a Checkered Board.

13:00–13:50 **V.V. Przhiyalkovskiy**, Log Calabi – Yau compactifications of Landau – Ginzburg models and related conjectures.

Lunch (100 minutes)

15:30–16:20 **T.R. Nasybullov**, Skew braces and solutions of the Yang – Baxter equation.

16:25–17:15 **N.A. Tyurin**, Liouville fields, Weinstein structures and Eliashberg conjectures.

Coffee break

11:40–12:40 **I.A. Dynnikov**, How to compare two knots?