International Online Conference

Algebraic and Geometric Methods of Analysis
dedicated to the memory of
Yuriy Trokhymchuk
(17.03.1928 - 18.12.2019)

Odesa, Ukraine
May 25-28, 2021

The conference will hold in the program ZOOM.

Please install it to your computer and register in the program in order to use it before the conference.

There will be two links to zoom-conferences: morning sections and day sections 1 will use the same red link, while day sections 2 will use another blue link.

Please pay attention that all times are shown in Kyiv time zone: GMT+3.

Check Current Kyiv time

The schedule might change, so please check it regularly.

Tuesday 25, May

9:00 - 9:20 **Opening**

Morning section

Chairman: Alexandr Prishlyak - RED link to zoom section 1

9:20 - 10:00 **Anatoly Golberg** – *Metric viewpoint in mapping theory between Riemannian manifolds*

10:10 - 10:50 **Sergiy Plaksa** – *Yu. Yu. Trokhymchuk: a life in mathematics*

11:00 - 11:20 **Maksym Tkachuk** – *Analog of Menchov-Trokhimchuk theorem for monogenic functions in three-dimensional commutative algebra*

Chairman: Anatoly Golberg

11:30 - 11:50 **Serhii Gryshchuk** – *Monogenic functions with values in commutative complex algebras of the second rank with unity and generalized biharmonic equation with non-zero simple characteristics*

11:55 - 12:15 **Tetiana Osipchuk** – *On m-convexity and m-semiconvexity of sets in Euclidean spaces*

12:20 - 12:40 **Andriy Bandura** – *A connection between L-index of vector-valued entire function and L-index of each its component*

Day section 1

Chairman: Nadiia Konovenko - RED link to zoom section 1

14:00 - 14:20 **Volodymyr Safonov** – *On countable multiplicity of mappings*

14:30 - 14:50 **Enzo Bonacci** – *Isomorphic issues about the CTCs in Quantum Physics*

14:55 - 15:15 **Andriana Vinskovska** – *Conformal mappings in Hardy-type spaces*

Chairman: Enzo Bonacci

15:20 - 15:40 **Kateryna Khalina, Larisa Fardigola** – *On controllability problems for the heat equation with variable coefficients controlled by the Dirichlet boundary condition on a half-axis*

15:50 - 16:10 **Francisco Bulnes** – *Geometrical Langlands ramifications and differential operators classification by Verma module extensions*

16:15 - 16:35 **Tetiana Obikhod** – *Entropy and phase transitions in Calabi-Yau space*

16:40 - 17:00 **Emrah Tosunoğlu** – *Onto the some dynamic applications via quaternions*

Day section 2

Chairman: Omer Gok - BLUE link to zoom section 2

14:00 - 14:20 **Anatoliy Petravchuk** – *Centralizers of elements in Lie algebras of vector fields*

14:30 - 14:50 **Dmytro Popovych** – *IW contractions and their generalizations*

15:00 - 15:20 **Vasyl Fedorchuk** – *On symmetry reduction and some classes of invariant solutions of the $(1+3)$-dimensional homogeneous Monge-Ampère equation*

15:30 - 15:50 **Vitaly Balashchenko** – *Invariant structures on homogeneous Φ-spaces and Lie groups*

Chairman: Vasyl Fedorchuk

16:00 - 16:20 **Dmitrii Legatiuk** – *Modified quaternionic operator calculus and its application to micropolar elasticity*

Wednesday 26, May

Morning section

Chairman: Marek Golasiński - RED link to zoom section 1
9:00 - 9:40 **Alexander Kachurovskii** – *Measuring the rate of convergence in the Birkhoff ergodic theorem*
9:50 - 10:10 **Vasyl Ostrovskyi** – *On representations of q_{ij}-commuting isometries*
10:20 - 10:40 **Oleg Reinov** – *On a result of G. Pisier concerning Sidon sets*

Chairman: Vasyl Ostrovskyi
10:50 - 11:30 **Yonatan Gutman** – *Variational principles for metric mean dimension*
11:40 - 12:00 **Taras Banakh** – *Every 2-dimensional Banach space has the Mazur-Ulam property*
12:10 - 12:30 **Igor Sokolenko, Anatolii Serdyuk** – *Asymptotic estimates for the widths of classes of periodic functions of high smothness*

Day section 1

Chairman: Nadiia Konovenko - RED link to zoom section 1
14:00 - 14:40 **Alexandr Prishlyak** – *Morse flows with singularities on boundary of 3-manifolds*
14:50 - 15:30 **Sergii Favorov** – *Uniqueness theorems for almost periodic objects*
15:40 - 16:00 **Evgeniy Petrov** – *Properties of quasisymmetric mappings to preserve the structures of spaces*
16:05 - 16:25 **Anatolii Tushev** – *On certain fractal-based estimations of subsidence volume*

Chairman: Sergii Favorov
16:35 - 16:55 **Razvan Tudoran** – *On dynamical systems with a prescribed globally bp-attracting set*
17:00 - 17:20 **Prabhjot Singh** – *Weak separation condition coincides finite type condition*
17:25 - 17:45 **Igor Vlasenko** – *On the equivalency classes of weakly conjugated inner mappings*
17:50 - 18:10 **Yana Teplitskaya** – *Regularity of maximal distance minimizers*

Day section 2

Chairman: Eugene Polulyakh - BLUE link to zoom section 2
14:00 - 14:20 **Mykhailo Zarichnyi, Nataliia Mazurenko** – *Hyperspaces of convex sets related to idempotent mathematics*
14:30 - 14:50 **Olexander Savchenko** – *Розмита ультраметризація просторів неаддитивних мір на розмитих ультраметричних просторах*
15:00 - 15:20 **Iurii Marko** – *Incomplete spaces of idempotent measures*

Chairman: Eugene Polulyakh
16:00 - 16:20 **Khrystyna Sukhorukova** – *Ultrametric spaces of *-measures*
16:25 - 17:05 **Pratyush Pranav** – *Topological data analysis for cosmology: theory and applications*
17:10 - 17:50 **Mircea Petrache** – *Uniform measures in Euclidean space*
17:55 - 18:15 **Alexander Katz** – *On real Σ^*-algebras of operators.*

Thursday 27, May

Morning section

Chairman: Oleg Reinov - RED link to zoom section 1
9:00 - 9:20 **Piotr Mormul** – *Two problems in nonholonomic geometry (in quest of a co-worker)*
9:30 - 10:10 **Alexander Mednykh** – *Volumes of knots and links in spaces of constant curvature*
10:20 - 10:40 **Andrei Dikarev** – *Parallel spinors on Lorentzian Weyl spaces*

Chairman: Alexander Mednykh
11:20 - 11:40 **Vladimir Balan** – *The Tucker HO-SVD for anisotropic Finslerian geometric models*
11:50 - 12:05 **Irina Streltsova** – *Projective invariants of linear planar 3-webs*
12:15 - 12:35 **Anna Glebova** – *Geometry of curves in three-dimensional space and invariants of nonlinear differential equations of the second order*

Day section 1

Chairman: Yuliia Soroka - RED link to zoom section 1
14:00 - 14:20 **Kaveh Eftekharinasab** – *Some applications of transeversality for infinite dimensional manifolds*
14:30 - 14:50 **Elena Afanas'eva** – *Finitely bi-Lipschitz homeomorphisms between Finsler manifolds*
15:00 - 15:20 **Jorge Vielma** – *The Terence Tao set and the Collatz conjecture*
15:30 - 15:50 **Volodymyr Prokip** – *On the matrix equation $AX - YB = C$ over Bezout domains*

Chairman: Kaveh Eftekharinasab

16:00 - 16:20 **Rouzbeh Mohseni** – *Twistor spaces on foliated manifolds*

16:30 - 16:50 **Angel Guale** – *The Collatz conjecture from an algebraic point of view*

16:55 - 17:15 **Mehsin Atteya** – *Generalized (σ, τ)-derivations on associative rings satisfying certain identities*

17:20 - 17:40 **Tamila Kolomiiets** – *Elements of probability theory and measures with values in hypercomplex algebras*

17:45 - 18:05 **Yagub Aliyev** – *Largest chord of a conic passing through a fixed point*

Day section 2

Chairman: Vladimir Balan - BLUE link to zoom section 2

14:00 - 14:20 **Yaryna Stelmakh** – *Homeomorphisms of the space of non-zero integers with the Kirch and Golomb topologies*

Chairman: Andrei Dikarev

16:55 - 17:15 **Alex Stokolos** – *On symmetrization of univalent polynomials*

17:25 - 18:05 **Boris Apanasov** – *Asymptotic Analysis of Quasi-Regular mappings in Space*

Friday 28, May

Morning section

Chairman: Piotr Mormul - RED link to zoom section 1

9:00 - 9:40 **Yuriy Drozd** – *Matrix problems, triangulated categories and stable homotopy types*

9:50 - 10:30 **Marek Golasiński** – *On homotopy nilpotency of Moore spaces*

10:40 - 11:00 **Eugene Polulyakh** – *On non-Hausdorff manifolds of dimension* 1

Chairman: Marek Golasiński

11:10 - 11:50 **Elena Kudryavtseva** – *Topology of spaces of smooth functions and gradient-like flows with prescribed singularities on surfaces*

12:00 - 12:20 **Alexandra Orevkova** – *Reducing singularities of smooth functions to normal forms*

12:30 - 13:10 **Jun Ueki** – *Modular knots obey the Chebotarev law*

Day section 1

Chairman: Olexander Savchenko - RED link to zoom section 1

14:00 - 14:20 **Oleg Gutik** – *On the monoid of cofinite partial isometries of positive integers with a bounded finite noise*

14:30 - 14:50 **Daher Al Baydli** – *Computational (Co)Homology Homomorphism and Bockstein Homomorphism*

15:00 - 15:20 **Anna Skryabina** – *The relation between T_0-topologies with the weight $[2^{(n-2)}, 2^{(n-1)}]$ on n-element set and T_0-topologies close to the discrete on $(n-1)$-element set*

15:30 - 15:50 **Valerii Dryuma** – *On the properties of manifolds defined by intersections*

Chairman: Valerii Dryuma

16:00 - 16:20 **Anatolij Prykarpatsky** – *On solutions to the modified Monge-Ampere type equation on the Kähler manifold $P_2(\mathbb{C})$.*

16:30 - 16:50 **Omer Gok** – *On orthosymmetric n-morphisms*

17:00 - 17:20 **James Peters** – *Homotopic Nerve Complexes with Free Group Presentations*

17:30 - 17:50 **Sergey Antonyan** – *Some new equivariant properties of Milnor's construction*

Day section 2

Chairman: Tetiana Obikhod - BLUE link to zoom section 2

14:00 - 14:20 **Bohdan Feshchenko** – *Deformations of circle-valued Morse functions on 2-torus*

14:30 - 15:10 **Sergiy Maksymenko** – *Symplectomorphisms preserving smooth functions on surfaces*

Chairman: Sergiy Maksymenko

16:00 - 16:20 **Iryna Kuznietsova, Yuliia Soroka** – *Realization of groups as fundamental groups of orbits of smooth maps*

16:30 - 17:10 **Irina Gelbukh** – *Realization of a graph as the Reeb graph of a Morse, Morse–Bott or a round function*

17:20 - 17:40 **Sumit Som** – *Some remarks on the metrizability of F-metric spaces*

17:50 - 18:30 **Vladimir Chernov** – *Applications of linking to the study of causality*