

International Online Conference
Algebraic and geometric methods of analysis

Odesa-Kyiv, Ukraine,
May 29 - June 31, 2023

The conference is dedicated to 160th anniversary of the first academician of the Ukrainian Academy of Sciences and the first director of the Institute of Mathematics of NAS of Ukraine



Dmytro Oleksandrovych Grave
(25.08.1863 - 19.12.1939)

<http://imath.kiev.ua/~topology/conf/agma2023>

Monday - May 29, 2023

09:15-09:30 **Opening**

Morning session

Chairman: Olexander Prishlyak

09:30-10:10 - **Andrei Telean** - [The Riemann-Hilbert problem and holomorphic bundles framed along a real hypersurface](#)

10:15-10:35 - **Georgii Riabov** - [Bifurcation points in random dynamical systems](#)

10:40-11:20 - **Maciej Denkowski** - [Inner semi-continuity of medial axes and conflict sets](#)

Chairman: Georgii Riabov

11:25-11:45 - **Stefan Ivkovic** - [Semi-Fredholm theory in unital \$C^*\$ -algebras](#)

11:50-12:10 - **Yagub Aliyev** - [Geometric properties of interception curves](#)

12:15-12:35 - **Parth Chavan** - [Hurwitz zeta functions and Ramanujan's identity for odd zeta values](#)

12:40-13:00 - **Yuri Nikolayevsky** - [Geodesic orbit pseudo Riemannian nilmanifolds](#)

Day session

Chairman: Yuri Nikolayevsky

14:00-14:50 - **Andrey Dorogovtsev** - [Random knots, geometry and probability](#)

Section A

Chairman: Yana Teplitskaya

15:00-15:20 - **Mehsin Atteya** - [Characterizing linear mappings through unital algebra](#)

15:25-15:45 - **Ruslan Skuratovskii** - [Normal subgroups of iterated wreath products of symmetric groups and alternating with symmetric groups](#)

15:50-16:10 - **Temitope Jaiyeola** - [On some non-associative hyperalgebraic structures](#)

Chairman: Ruslan Skuratovskii

16:15-16:35 - **Yana Teplitskaya** - [About some Steiner trees](#)

16:40-17:00 - **Vijay Bhat** - Edge resolvability and topological characteristics of zero-divisor graphs

17:05-17:25 - **Rachid EL Maaouy** - The Gorenstein flat model structure relative to a semidualizing module

Section B

Chairman: Stefan Ivkovic

15:00-15:40 - **Jerzy Kąkol** - On Asplund spaces $C_k(X)$ of continuous real-valued functions on Tychonoff spaces X with the compact-open topology

15:45-16:05 - **Omer Gok** - On KB(Kantorovich-Banach) spaces and KB operators

16:10-16:30 - **Tomasz Kobos** - On the dimension of the set of minimal projections

16:35-16:55 - **Zoryana Novosad** - The conditions of hypercyclicity of weighted backward shifts

Evening session

17:30-18:10 - **Yaacov Kopeliovich** - The fundamental group of Riemann surfaces via the Riemann existence theorem

Tuesday - May 30, 2023

Morning session

Chairman: Dmitry Bolotov

09:15-09:55 - **Raffaella Servadei** - On a flower-shape geometry

10:00-10:40 - **Alexey Bolsinov** - Nijenhuis geometry

10:50-11:30 - **Sergiy Maksymenko** - Homotopy type of diffeomorphism groups of simplest Morse-Bott foliations on lens spaces

Chairman: Raffaella Servadei

11:35-12:15 - **Piotr Mormul** - Car+trailers' systems are locally nilpotentizable (a Trieste 2000 conference revisited)

12:20-12:40 - **Alexandr Prishlyak** - Structure of codimensional one flows on the 2-sphere with holes

12:45-13:05 - **Dmitry Bolotov** - Thurston norm and Euler classes of bounded mean curvature foliations on hyperbolic 3-manifolds

Day session

Chairman: Sergiy Maksymenko

14:00-14:40 - **Viktor Gerasymenko** - The 100th anniversary of the publication of the essay by Academician D. Grave "How the Universe is arranged" - on the evolution of geometric ideas

14:45-15:25 - **Eugene Lytvynov** - Lie structures of the Sheffer group over a Hilbert space

Section A

Chairman: Łukasz Michalak

15:30-15:50 - **Sohei Tateno** - The Iwasawa invariants of \mathbb{Z}_p^d -covers of links

15:55-16:15 - **Jun Ueki** - The multiplicities of non-acyclic SL_2 -representations and L-functions of twisted Whitehead links

16:20-16:40 - **Iryna Kuznietsova** - Deformational symmetries of functions with isolated singularities on the Möbius band

Chairman: Iryna Kuznietsova

16:45-17:05 - **Naoki Kitazawa** - Explicit construction of explicit real algebraic functions and real algebraic manifolds via Reeb graphs

17:10-17:30 - **Łukasz Michalak** - Reeb graph invariants of Morse functions, manifolds and groups

17:35-18:15 - **Miruna-Stefana Sorea** - Poincare-Reeb graphs of real algebraic domains

Section B

Chairman: Oleksandr Stokolos

15:30-15:50 - **Igor Sokolenko** - Asymptotic behavior of the widths of classes of the generalized Poisson integrals

15:55-16:15 - **Evgeny Sevost'yanov** - On equicontinuity of families of mappings with one normalization condition by the prime ends

16:20-16:40 - **Mariia Stefanchuk** - On lower estimate of the diameter of the image of a 2-disk

Chairman: Evgeny Sevost'yanov

16:45-17:05 - **Oleksandr Dovahopiatyi** - On the possibility of joining two pairs of points in convex domains using paths

17:10-17:30 - **Oleksandr Stokolos** - On univalent trinomials

17:35-17:55 - **Katherina von Dichter** - The diameter-width-ratio for complete and pseudo-complete sets

Wednesday - May 31, 2023

Morning session

Chairman: Vladimir Zolotarev

09:30-10:10 - **Marek Golasinski** - On polynomial and regular maps of spheres

10:15-10:35 - **Oleg Gutik** - On homomorphisms of bicyclic extensions of archimedean totally ordered groups

10:40-11:00 - **Bohdan Feshchenko** - Homotopy type of stabilizers of functions with non-isolated singularities on surfaces

Chairman: Oleg Gutik

11:10-11:50 - **Vladimir Zolotarev** - p -Hyperbolic Zolotarev functions in boundary value problems for a p -th order differential operator

11:55-12:15 - **Naoya Ando** - Surfaces with zero mean curvature vector in 4-dimensional spaces

12:20-12:40 - **Marharyta Pistruil** - Закономірності квазі-геодезичних відображень узагальнено-рекурентно-параболічних просторів

Day session

Chairman: Marek Golasinski

14:00-14:20 - **Thiago de Melo** - Gottlieb groups of some Moore spaces

14:25-14:45 - **Tane Vergili** - Proximal connectedness. Spatially and descriptively connected spaces

14:50-15:10 - **James Peters** - Several forms of the geometric Lusternik-Schnirel'mann category

15:15-15:35 - **Enzo Bonacci** - Shape optimization in the batch crystallization of CAM

Section A

Chairman: Enzo Bonacci

15:45-16:05 - **Nikolaj Glazunov** - On direct limits of Minkowski's balls, domains, and their critical lattices

16:10-16:30 - **Andriy Prymak** - Convex bodies of constant width with exponential illumination number

16:35-16:55 - **Dmitry Ryabogin** - On symmetries of sections of convex bodies

Chairman: Andriy Prymak

17:00-17:20 - **Serhii Myroshnychenko** - How apart can centroids be?

17:25-17:45 - **Susanna Dann** - On a problem of Fejes Toth

17:50-18:10 - **Illia Ovtynov** - Fermat-Torricelli sets of finite sets of points in Euclidean plane

Section B

Chairman: Eugene Petrov

15:45-16:05 - **Samir Marouani** - SKT hyperbolic and Gauduchon hyperbolic compact complex manifolds

16:10-16:30 - **Ihor Gavrylenko** - Stability of minimal surfaces in the subriemannian manifold $\widetilde{E(2)}$

16:35-16:55 - **Olena Shugailo** - Equiaffine immersions of codimension two with flat connection

17:00-17:20 - **Volodymyr Kiosak** - Geodesic mappings of generalized symmetrical manifolds

17:25-17:45 - **Mohamed Mhamdi** - Hölder continuity of generalized harmonic functions in the unit disc

17:50-18:10 - **Francisco Bulnes** - Homotopies to diffeomorphisms in symplectic geometry to field theory

Thursday - June 01, 2023

Morning session

Chairman: Layth Muhsin Alabdulsada

09:20-10:00 - **Meirav Amram** - Planar and non-planar degenerations with related fundamental groups

10:05-10:25 - **Jia-Li Mo** - The rank of Mordell-Weil groups of algebraic surfaces

10:30-10:50 - **Mykhailo Zarichnyi** - Invariant *-measures

Chairman: Meirav Amram

11:20-11:40 - **Iurii Marko** - Spaces of idempotent measures with countable support

11:45-12:05 - **Peter Olanipekun** - On critical submanifolds of the Willmore energy in four dimensions

12:10-12:30 - **Layth Muhsin Alabdulsada** - Hopf-Rinow theorem of sub-Finslerian geometry

12:35-12:55 - **L'hamri Raja** - Codes from zero-divisor super- λ graph

Day session

Chairman: Vasyl Fedorchuk

14:00-14:20 - **Tetiana Obikhod** - Studying the properties of a superpotential using algebraic equations

14:25-14:45 - **David Carfi** - Algebraic and geometric methods in Schwartz distribution spaces for relativistic quantum mechanics

14:50-15:10 - **Kateryna Khalina** - On controllability problems for the heat equation in a half-plane in the case of a pointwise control in the Dirichlet boundary condition

Chairman: Tetiana Obikhod

15:15-15:35 - **Christos Pallikaros** - On degenerations of complex associative algebras of dimension three

15:40-16:00 - **Vasyl Fedorchuk** - On partial preliminary group classification of some class of (1+3)-dimensional Monge-Ampere equations. Two-dimensional Abelian Lie algebras

16:05-16:25 - **Maryna Nesterenko** - Contractions of representations and realizations of Lie algebras

16:30-16:50 - **Jason Morris** - Degree theory for proper C^1 Fredholm mappings with applications to boundary value problems on the half line

16:55-17:15 - **Mykola Pratsyovyty** - Геометрія чисел у задачах конструктивної теорії локально складних функцій

Chairman: Sergiy Maksymenko

17:20-18:00 - **Yuriy Drozd** - [Backström curves](#)