

International Online Conference  
**Algebraic and geometric methods of analysis**

Odesa-Kyiv, Ukraine,  
May 25 - 28, 2026

<http://imath.kiev.ua/~topology/conf/agma2026>

**Monday - May 25, 2026**

09:00-09:10 **Opening**

**Morning session**

Chair: Sergiy Maksymenko

09:10-09:50 - **Andrei Teleman** - A gauge theoretical generalisation of Bryant's correspondence

09:55-10:15 - **Joris Kirchner** - Introducing the topological stability index

10:20-11:00 - **Mykola Pratsiovytyi** - Geometry of encoding of numbers by means of a redundant alphabet in problems of function theory with fractal properties

Chair: Joris Kirchner

11:05-11:45 - **David Carfi** - Linearization of Hamilton-Jacobi equations via curved manifolds of Schwartz waves and Schrödinger dynamics

11:50-12:30 - **Iliaria Svampa** - Representations of the p-adic rotation group towards p-adic quantum computing

12:35-12:55 - **Stefan Ivkovic** - Disjoint F-semi-transitivity in Banach algebras

**Day session**

14:00-14:40 - **Anatolij Prykarpatsky** - On the Grothendieck embedding problem of linear closed subspaces into Banach spaces revisiting

**Section A**

Chair: Omer Gok

14:45-15:05 - **Maria Rosaria Formica** - Exponential tail estimates for lacunary trigonometric series

15:10-15:50 - **Uzma Bashir** - Soliton analysis of some PDEs by different algebraic methods

15:55-16:15 - **Narmin Aliyeva** - Sturm-Liouville problems with a boundary condition depending linearly on an eigenparameter

Chair: Maria Rosaria Formica

16:20-16:40 - **Omer Gok** - A note on demi Dunford-Pettis operators

16:45-17:05 - **Kateryna Khalina** - Controllability problems for the parabolic equation in a half-plane controlled by the Dirichlet boundary condition with a bounded control

17:10-17:30 - **Rukmini Dey** - Berezin and Odziejewicz quantization on smooth manifolds

17:35-18:15 - **Katherina Von Dichter** - Mixed volume inequalities

**Section B**

Chair: Oleksandra Vinnichenko

14:45-15:05 - **Olena Vaneeva** - Exact solutions of nonlinear dispersive evolution equations

15:10-15:30 - **Volodymyr Fedorchuk** - On partial preliminary group classification of some class of (1+3)-dimensional Monge-Ampere equations. Three-dimensional Lie algebras

15:35-15:55 - **Dalila Messai** - On p-adic differential operator

Chair: Volodymyr Fedorchuk

16:00-16:20 - **Oleksandra Vinnichenko** - Symmetry properties of symmetric Nyzhnyk models

16:25-16:45 - **Tetiana Obikhod** - Supersymmetry, supergravity and non-perturbative dynamics of gauge theories

16:50-17:10 - **Jean de Dieu Maniraguha** - Admissible transformations and Lie symmetries of linear Schrödinger equations with complex-valued time-independent potentials

**Morning session**

Chair: Olexandr Prishlyak

09:05-09:45 - **Ioannis Diamantis** - Algebraic and geometric aspects of non-classical knots

09:50-10:30 - **Sergiy Maksymenko** - On non-existence of continuous decomposition of symmetric matrices into a linear combination of orthoprojectors

Chair: Ioannis Diamantis

10:35-11:15 - **Kaveh Eftekharinasab** - A class of functionals on the sequence space  $s$  satisfying the Palais-Smale condition

11:15-11:55 - **Naoya Ando** - The equations of Gauss, Codazzi and Ricci of surfaces in 4-dimensional space forms

12:00-12:20 - **Naoki Kitazawa** - On explicit Reeb spaces of real analytic functions which are not homeomorphic to any finite graph

**Day session**

**Section A**

Chair: Valerii Targonskii

13:20-13:40 - **Sergiy Plaksa** - Estimates of the modulus of continuity of the logarithmic double layer potential in the closure of domain

13:45-14:05 - **Evgeny Sevost'yanov** - On analogue of Koebe-Bloch theorem for ring homeomorphisms

14:10-14:30 - **Zarina Kovba** - On Caratheodory theorem for Orlicz-Sobolev classes

14:35-14:55 - **Victoria Desyatka** - On Caratheodory boundary extension of mappings with moduli inequality

15:00-15:20 - **Anamaria Pastiu** - On generalized Graham-Kohr extension operators, Loewner chains, and Janowski subordination in the unit ball

Chair: Evgeny Sevost'yanov

15:25-15:45 - **Mariia Stefanchuk** - Local behavior of ring  $Q$ -homeomorphisms with respect to the  $p$ -modulus under exponential integrability of the function  $Q$

15:50-16:10 - **Valerii Targonskii** - On Koebe-Bloch theorem under some integral constraints

16:15-16:35 - **Maksym Tkachuk** - Menshov-Trokhymchuk type theorem in a finite-dimensional Banach algebra

16:40-17:00 - **Denys Romash** - On equicontinuity of mappings with branching defined in family of domains

17:05-17:25 - **Eugenia Luca** - Invariance of  $\alpha$ -convexity of order  $\beta$

**Section B**

Chair: Enzo Bonacci

13:20-14:00 - **Ildefonso Castro** - Quadric surfaces of revolution as cubic Weingarten surfaces

14:05-14:25 - **Dmytry Bolotov** - On  $n$ -convex  $(2n - 2)$ -dimensional submanifolds in  $E^{2n}$

14:30-14:50 - **Eugene Petrov** - Horizontal Gauss maps of hypersurfaces in 2-step Carnot groups

14:55-15:15 - **Layth M Alabdulsada** - Sub-Hamiltonian framework for sub-Finsler geometry

Chair: Eugene Petrov

15:20-15:40 - **Enzo Bonacci** - HOL, CFD and AI as integrated methods of analysis

15:45-16:05 - **Francisco Bulnes** - A quantum ground operator in field theory

16:10-16:30 - **Mehsin Atteya** - The structure of D-homoderivations in Lie algebra

16:35-16:55 - **Temitope Jaiyeola** - On loops that satisfy  $x \cdot (x \cdot yx)z = (x \cdot xy) \cdot xz$

## Wednesday - May 27, 2026

### Morning session

Chair: Meirav Amram

09:00-09:40 - **Yuriy Drozd** - Singularities of real nodal curves

09:40-10:00 - **Olexandr Prishlyak** - Stratified Hamiltonian flows on immersions of the projective plane

10:05-10:25 - **Oleg Gutik** - On topologization of the extended bicyclic semigroup

10:30-10:50 - **Piotr Mormul** - Numerical moduli in the geometry of [special] multi-flags

Chair: Olexandr Prishlyak

10:55-11:15 - **Nikolaj Glazunov** - AGMA in the method of proving Minkowski's conjecture on Diophantine approximations, its applications, and generalizations

11:20-12:00 - **Meirav Amram** - Geometry vs. Topology: Classifying curves via Zariski pairs

12:05-12:45 - **Eduardo Fernandez-Saiz** - A stochastic Poisson coalgebra method and their applications

12:50-13:30 - **Eugene Lytvynov** - Lie-like structures over a product of vector spaces, with application to the Sheffer and Riordan groups

### Day session

#### Section A

Chair: Illia Ovtsynov

14:00-14:20 - **Bohdan Feshchenko** - Homotopy type of stabilizers of Morse-Bott functions on surfaces

14:25-14:45 - **Bohdan Mazhar** - Homotopy structure of orbits of smooth functions lifted to an orientable double cover

14:50-15:10 - **Eugene Polulyakh** - On one-dimensional foliations on the plane

15:15-15:35 - **Igor Vlasenko** - One-dimensional non-Hausdorff manifolds and CW complexes

15:40-16:00 - **Serhii Stas** - Coding of flows with singularities on the boundary of the two-dimensional disk

Chair: Bohdan Mazhar

16:05-16:25 - **Mykola Lysynskiy** - Differentiable structures on line with  $n+1$  origins

16:30-17:10 - **Sajad Salami** - On the rational points and zeta functions of the weighted projective spaces

17:15-17:35 - **Illia Ovtsynov** - Structure of gradient flows with a degenerate node on the sphere with holes

17:40-18:00 - **Oleh Vynnyshyn** - A criterion for finitely many intervals in achievement sets of random power series with restricted alphabet

18:05-18:25 - **Hasitha Geekiyanage** - Algebraic analogue for Swan's local to global extension lemma

18:30-18:50 - **Dmitry Ryabogin** - On bodies with completely symmetric projections

#### Section B

Chair: Ruslan Skuratovskii

14:00-14:20 - **Nikolaj Glazunov** - Quantum models of the Riemann zeta function, algebraic entanglement models, and (adelic) Galois representations

14:25-15:05 - **Ruslan Skuratovskii** - Subwreath product as structure of normal subgroups of symmetric group wreath product

15:10-15:50 - **Bilal Rather** - Homotopy type and edge ideals of comaximal graph of ring  $\mathbb{Z}_n$

Chair: Mehsin Atteya

15:55-16:15 - **Assila Khairuddin** - Finite commutative rings through graphs: structural, connectivity, and spectral perspectives

16:20-17:00 - **Sajad Salami** - On the rational points and zeta functions of the weighted projective spaces

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17:45-17:55 **Conference closing**