

International Conference
Morse theory and its applications

National Pedagogical Dragomanov University
Pyrohova, 9, Kyiv, Ukraine
September 25-28, 2019

Wednesday 25, September

08:30-09:30 **Registration (room 451)**

Morning section (room 448) (Chairman: Sergiy Maksymenko)

09:30-10:00 **Opening**

10:00-10:40 **Kaoru Ono** *Symplectic Floer theory*

10:45-11:25 **Marek Golasiński** *Matrix manifolds as affine varieties*

11:25-11:50 ☕ **Coffebreak (room 451)**

11:50-12:30 **Sergiy Maksymenko** *Life and mathematical works of Volodymyr Sharko, 1*

12:35-13:15 **Vladimir Vershinin** *Surfaces, braids and homotopy groups of spheres*

13:15-14:45 🍴 **Lunch**

Section A (room 448) (Chairman: Dominik Wrazidlo)

14:45-15:05 **Iryna Kuznietsova** *Properties of changing orientation homeomorphisms of the disk*

15:10-15:30 **Yuliia Soroka** *First Betti numbers of orbits of Morse functions on surfaces*

15:35-15:55 **Eugene Polulyakh** *On spaces of leaves of one-dimensional foliations on surfaces*

16:00-16:25 ☕ **Coffebreak (room 451)**

16:25-16:45 **Anna Kravchenko** *Automorphisms of the Kronrod-Reeb graphs of Morse functions on 2-sphere*

16:50-17:10 **Olexandra Khokhliuk** *Diffeomorphisms groups of certain singular foliations on lens spaces*

17:15-17:35 **Bohdan Feshchenko** *Stabilizers of smooth functions on 2-torus*

17:40-18:00 **Katherina von Dichter** *Assymmetric diameters*

Section B (room 431) (Chairman: Mariusz Kwiatkowski)

14:45-15:05 **Jose Oliveira** *A note on cohomology of locally trivial Lie groupoids on triangulated spaces*

15:10-15:30 **Juliusz Stochmal** *Extension of continuous operators on $C_b(X, E)$*

15:35-15:55 **Kaveh Eftekharinasab** *A version of L-S Theorem for C^1 -functions on Frechet-Finsler manifolds*

16:00-16:25 ☕ **Coffebreak (room 451)**

16:25-16:45 **Anatolij Prykarpatski** *On the Frobenius manifolds and tangent space related Frobenius algebras*

16:50-17:10 **Arkadii Kindyaliuk** *Dynamical system of inverse heat conduction via Direct method of Lie-algebraic discrete approximations*

17:15-17:35 **Sergey Chuiko** *Generalized Green operator of a linear Noetherian boundary value problem for a differential-algebraic system*

17:40-18:00 **Olga Nesmelova** *Equilibrium positions of nonlinear differential algebraic systems*

Thursday 26, September

Morning section (room 448) (Chairman: Marek Golasiński)

09:30-10:10 **Søren Galatius** *Graphs and Riemann surfaces*

10:15-10:55 **Myhailo Zarichnyi** *(joint talk with A. Savchenko) On topology of spaces of persistence diagrams*

11:00-11:25 ☕ **Coffebreak (room 451)**

11:25-12:05 **Taras Panov** *Right-angled polytopes, hyperbolic manifolds and torus actions*

12:10-12:50 **Mark Pankov** *Z-knotted triangulations of surfaces*

12:55-13:15 **Mariusz Kwiatkowski** *Tree structured z-knotted triangulations of a sphere*

13:20-13:30 📷 **Common photo**

13:30-15:00 🍴 **Lunch, free time**

15:00-18:00 **Walk excursion in the center of Kyiv. We meet near metro station “Zoloti vorota”**

Friday 27, September

Morning section (room 448) (Chairman: Marek Wójtowicz)

09:15-09:55 **Sergiy Maksymenko** *Life and mathematical works of Volodymyr Sharko, 2*

10:00-10:40 **Zhi Lü** *On orbit braids* 📺 (Skype lecture)

10:45-11:10 ☕ **Coffebreak (room 451)**

11:10-11:50 **Jie Wu** *Topology in combinatorics and data* 📺

Saturday 28, September

11:55-12:35 **Olexandr Prishlyak** *Morse functions and Morse flows on manifolds with the boundary*

12:40-13:00 **Dominik Wrazidlo** *Cobordism groups of Morse functions, SKK-relations, and applications*

13:00-14:30 🍴 Lunch

Section A (room 448) (Chairman: Mark Pankov)

14:30-14:50 **Łukasz Michalak** *Realization problems for Reeb graphs and epimorphisms onto free groups*

14:55-15:15 **Marek Wójtowicz** *A few remarks on the expression $a + b - c$*

15:20-15:40 **Jun Ueki** *Chebotarev link is stably generic*

15:45-16:10 ☕ Coffebreak (room 451)

16:10-16:30 **Nikolaj Glazunov** *Braids, links, strings and algorithmic problems in topology*

16:35-16:55 **Khoule Cheikh** *Equilibrium positions of nonlinear differential-algebraic systems*

17:00-17:20 **Mariusz Bodzioch** *Singularity of control in a model of acquired chemotherapy resistance*

17:25-17:45 **Igor Vlasenko** *Topology of the basin of attraction of surface endomorphisms*

Section B (room 431) (Chairman: Olena Karlova)

14:30-14:50 **Oleg Gutik** *On the monoid of cofinite partial isometries of a finite power of positive integers with the usual metric*

14:55-15:15 **Andriy Zagorodnyuk** *Algebras of symmetric analytic functions and their spectra*

15:20-15:40 **Svitlana Halushchak** *Algebras of entire functions on a Banach space*

15:45-16:10 ☕ Coffebreak (room 451)

16:10-16:30 **Taras Vasylyshyn** *Symmetric analytic functions on some Banach spaces*

16:35-16:55 **Liudmyla Vyhivska** *Extremal problem for domains that are non-overlapping with free poles on the circle*

17:00-17:20 **Viktor Gerasimenko** *Entanglement and geometry of states of quantum many-particle systems*

17:25-17:45 **Tetiana Obikhod** *The use of K -theory in high energy physics*

18:10-20:30 🍷 Banquet (at the University canteen)

Morning section (room 448) (Chairman: Olexandr Prishlyak)

09:30-10:10 **Taras Banakh** *The continuity of Darboux injections between manifolds*

10:15-10:55 **Ilya Spitkovsky** *Topological properties of the set of factorable almost periodic matrix functions*

11:00-11:25 ☕ Coffebreak (room 451)

11:25-12:05 **Arkadiy Skopenkov** *Generalization of Whitney trick for eliminating multiple intersections*

12:10-12:50 **Ivan Dynnikov** *Distinguishing Legendrian and transverse knots*

12:50-13:10 **Leonid Plachta** *On configuration spaces of k thick particles in a rectangle*

13:10-14:30 🍴 Lunch

Day section (room 448) (Chairman: Eugene Polulyakh)

14:30-15:10 **Olena Karlova** *Weak R -spaces and uniform limit of sequences of discontinuous functions*

15:15-15:35 **Iryna Yurchuk** *On pseudo-harmonic functions defined on k -connected domain*

15:40-16:00 **Oleksandr Kadubovs'kyi** *Enumeration of topologically non-equivalent functions with one degenerate saddle critical point on two-dimensional torus*

16:00-16:20 ☕ Coffebreak (room 451)

16:25-16:45 **Ruslan Skuratovskii** *The commutator of Sylow subgroups of alternating and symmetric groups, these minimal generating sets*

16:50-17:10 **Hossein Hatamian** *Optimal Morse flows on non-orientable 3-manifolds*

16:40-17:20 **Dusan Repovš** *S^1 -Bott functions on manifolds (TBC)*