# International Conference REAL AND COMPLEX DYNAMICAL SYSTEMS, dedicated to Prof. Yulij Ilyashenko's 80-th Birthday

Tsaghkadzor, Armenia, November 20-25, 2023

All the talks and all the meals (except for lunch and dinner at Wednesday, November 22) will take place at **Ripa Hotel**, Tsaghkadzor. If you have any questions or issues feel free to call **Vardan** any time. Armenian phone number +374 55 80 6148. WhatsApp +1 831 6653242. Telegram Vartanbobo007

# **MONDAY November 20**

9:00 - 10:00 Breakfast

8:30 - 10:00 Registration

10:00 - 10:15 Opening

10:15 - 10:55 Dmitry Treschev

Normalization flow

10:55 - 11:25 Coffee

11:25 - 12:05 Raphael Krikorian

Divergence and convergence of Birkhoff Normal Forms

**12:15 - 12:45** Sanjeeva Balasuriya 2D invariant manifolds in 3D flows: perturbed locations under general perturbations and instantaneous flux

13:00 - 14:30 Lunch

**15:30 - 16:10** Frank Loray (online) *Neighborhoods of curves in complex surfaces* 

**16:20 - 16:50** Sergei Voronin *Degenerated singular points of binary differential equations* 

16:50 - 17:20 Coffee

**17:20 - 18:00** Laurent Stolovitch On neighborhoods of embedded complextori

**18:10 - 18:40** Irina Astashova Dynamical systems in asymptotic behavior of solutions to higher-order nonlinear differential equations and its asymptotic equivalence

19:00 - 21:00 Dinner

## **TUESDAY November 21**

9:00 - 10:00 Breakfast

10:00 - 10:40 Konstantin Khanin

Typical rotation numbers for families of circle maps with singularities

10:40 - 11:10 Coffee

11:10 - 11:30 Zhaofeng Lin

Gaussian limit of the process of moduli for the Ginibre and hyperbolic ensembles

11:40 - 12:00 Sergei Gorbunov

Speed of convergence of linear functionals in DPP with Bessel kernel

12:10 - 12:40 Alexey Klimenko

Determinantal processes and decomposition of functions into series defined by values in points of a random configuration

13:00 - 14:30 Lunch

**15:00 - 15:40** Alexandra Skripchenko *Ergodic properties of certain classes of interval translation mappings* 

**15:50 - 16:20** Armen Bagdasaryan *Optimal Flows in Dynamic Transport Networks and Replicator Dynamical Systems* 

**16:20 - 18:20** Coffee and poster session.

Posters: Timur Bakiev, Ekaterina Chilina, Alexey Glutsyuk, Elena Nozdrinova, Polina Shaikhullina, Danil Shubin, Ilya Tolstukhin, Ekaterina Tsaplina.

18:45 - 20:15 Dinner

**20:30 - 21:10** Alexander Bufetov *Babylonian lunar theory (informal evening lecture)* 

#### **WEDNESDAY November 22**

8:50 - 9:40 Breakfast

**9:40 - 10:20** Marco Mazzucchelli Surfaces of section for geodesic flows of closed surfaces

10:20 - 10:50 Coffee

**10:50 - 11:30** Sergei Tabachnikov *Bicycling geodesics and elastic curves* 

Excursion (or hike). During it, lunch and dinner will be organized.

# **THURSDAY November 23**

9:00-9:50 Breakfast

9:50 - 10:30 Sergei Pilyugin

Shadowing in hyperbolic and nonhyperbolic dynamical systems

10:40 - 11:10 Andrey Dukov

Multiple limit cycles that appear from hyperbolic polycycles

11:10 - 11:40 Coffee

11:40 - 12:10 Dmitry Filimonov

Singularities in generic two-parameter families of vector fields on 2-sphere

12:20 - 12:50 Yury Kudryashov

Computer-readable proofs and dynamical systems

13:00 - 14:30 Lunch

**15:30 - 16:10** Bertrand Deroin (online) *TBA* 

16:10 - 16:40 Coffee

16:40 - 17:20 Yuli Ilyashenko

Computer-readable proofs and dynamical systems

18:00 - 19:00 Duduk concert

**19:00** Banquet

## **FRIDAY November 24**

9:00 - 10:00 Breakfast

10:00 - 10:40 Mikhail Lyubich

Structure of Feigenbaum Henon maps

10:50 - 11:20 Nataliya Goncharuk

Renormalization operators and Arnold tongues

11:20 - 11:50 Coffee

11:50 - 12:30 Artur Ishkhanyan

Heun-function solutions of the Schrodinger equation

13:00 - 14:30 Lunch

15:00 - 15:40 Anton Gorodetski

Dynamical Methods in Spectral Theory of

Ergodic Schrodinger Operators

**15:50 - 16:30** Victor Kleptsyn

Holder regularity of stationary measures

16:30 - 17:00 Coffee

**17:00 - 17:40** Melvin Yeung (online)

An introduction to the Theorem of Dulac

17:50 - 18:30 Askold Khovanskii (online)

Fibered toric varieties

18:45 - 20:15 Dinner

# **SATURDAY November 25**

8:50 - 9:40 Breakfast

9:40 - 10:20 Olga Pochinka

Homeomorphisms on three-dimensional manifolds with pseudo-Anosov attractors and repellers

10:30 - 11:00 Elena Gurevich

Framed link as topological invariant of polar flows on four-dimensional manifolds

11:00 - 11:30 Coffee

11:30 - 12:00 Ivan Shilin

Attractors with non-invariant interior

12:10 - 12:50 Vladlen Timorin

Aperiodic points for dual billiards

**12:50** Closing

13:00 - 14:30 Lunch

18:45 - 20:15 Dinner