

PROGRAM/TIMETABLE

MONDAY, 4.09.2023 3rd Conference on Nonlinearity

9:00 – 9:45 (45 min) : Registration **9:45 – 10:00 (15 min) : Opening**

10:00 – 10:40 (40 min) : Boris Malomed

Multidimensional solitons

10:45 – 11:20 (35 min) : Miguel A. F. Sanjuan

Partial Control and Beyond: Controlling Chaotic Transients with the Safety Function

11:20 – 11:50 (30 min) : Coffee/Refreshments

11:50 – 12:30 (40 min) : Igor Volovich **(Zoom online)**

Spaces of negative dimensions in black hole thermodynamics and quantum cosmology

12:35 – 13:00 (25 min) : Lyudmila Efremova **(Zoom online)**

On the example of the geometrically integrable map with ramified chaotic attractor

13:05 – 13:30 (25 min) : Vsevolod Sakbaev **(Zoom online)**

Continuation of the nonlinear Schrodinger dynamics to extended space and invariant measures

13:30 – 15:00 (90 min) : L u n c h

15:00 – 15:35 (35 min) : Djordje Minic

Quantum gravity = Gravitized quantum theory

15:40 – 16:00 (20 min) : Goran Djordjevic

Attractor behaviour in RSII constant-roll inflation

16:05 – 16:35 (30 min) : Bosiljka Tadic

Cyclical trends as a signature of self-organization in driven nonlinear systems

16:40 – 17:30 (50 min) : Presentation of Diplomas to SANS members

17:30 – 19:00 (90 min) : Cocktail with dish

TUESDAY, 5.09.2023 3rd Conference on Nonlinearity

9:15 – 9:55 (40 min) : Irina Arefeva ([Zoom online](#))

Gas of shells as microscopic origin of black holes entropy

10:00 – 10:30 (30 min) : Andjelka Kovačević

Nonlinear analysis of the emission of close binary supermassive black hole candidates

10:30 – 11:00 (30 min) : Coffe/Refreshments

11:00 – 11:40 (40 min) : Sergey Odintsov

Generalised holographic dark energy and novel entropies

11:45 – 12:25 (40 min) : Salvatore Capozziello

Non-local gravity cosmology

12:30 – 13:05 (35 min): Tomohiro Inagaki

Predictions in Cartan $F(R)$ Gravity

13:05 – 15:00 (115 min) : *L u n c h*

15:00 – 15:30 (30 min) : Alexander Zakharov ([Zoom online](#))

Astrophysical and cosmological tests of general relativity

15:35 – 15:55 (20 min) : Predrag Jovanović

*Estimation of graviton mass from Schwarzschild precession in S2 star orbit around Sgr A**

16:00 – 16:20 (20 min) : Miroslava Vukčević

Nonlinear density wave explaining rotational curves in the spiral galaxies

16:20 – 16:40 (20 min): Coffee/Refreshments

16:40 – 17:05 (25 min): Dejan Stojkovic ([Zoom online](#))

Quantum aspects of gravitational collapse: non-singularity and non-locality

17:10 – 17:30 (20 min) : Shoko Ono

Nonlinear analysis of strong coupling gauge theory on Torus

WEDNESDAY, 6.09.2023 3rd Conference on Nonlinearity

9:15 – 9:55 (40 min) : Yuri Kivshar ([Zoom online](#))

Nonlinear metaphotonics

10:00 – 10:20 (20 min) : Vladimir Škarka ([Zoom online](#))

Theoretical, experimental, and numerical synergy in self-organization of tweezer-solitons

10:25 – 11:00 (35 min) : Coffe/Refreshments

11:00 – 11:25 (25 min) : Ivana Kovačić

Relaxation oscillations in autonomous and non-autonomous systems

11:30 – 11:55 (25 min) : Radu Constantinescu ([Zoom online](#))

Symmetries of nonlinear systems

12:00 – 12:20 (20 min) : Aleksandra Maluckov

Maintaining lasing topological zero-mode in distorted photonic lattice by nonlinearity

12:20 – 12:35 (15 min) : Coffe/Refreshments

12:35 – 13:05 (30 min): Vladimir Dragovic

Bridging Statistics with Geometry and Mechanics

13:10 – 13:30 (20 min) : Nikola Petrović

Solitary and traveling two-component wave solutions in nematic liquid crystals using the Jacobi elliptic function expansion method

13:35 – 13:55 (20 min) : Stanko Nikolić

Kuznetsov–Ma rogue wave clusters of the nonlinear Schrödinger equation

FREE TIME

THURSDAY, 7.09.2023 3rd Conference on Nonlinearity

9:15 – 9:45 (30 min) : Magdalena Djordjević

Analyzing Dynamics of Tight Regulation: From Epidemics to Cells

9:50 – 10:10 (20 min) : Andjela Rodić

Testing a possible mechanism for endogenous activation of the CRISPR-Cas system

Type I-E in E. coli by mathematical modeling

10:15 – 10:35 (20 min) : Dragana Ranković

Stability analysis of solutions in the helicoidal Peyrard-Dauxois model of DNA

molecule

10:40 – 11:10 (30 min) : Coffe/Refreshments

11:10 – 11:30 (20 min) : Branko Dragovich

p-Adic scalar particles in the dark side of the Universe

11:35 – 11:55 (20min): Ivan Dimitrijević

Schwarzschild-de Sitter metric type solutions of a Nonlocal de Sitter Gravity Model

12:00 – 12:25 (25 min): Milan Dimitrijevic

Broadening of spectral lines by collisions with charged particles for investigations of neutron stars

12:30 – 12:50 (20 min): Branislav Sazdović

From Fock-Ivanenko covariant derivatives to non-Abelian and Poincare gauge theories

12:50 – 15:00 (130 min) : L u n c h

15:00 – 15:30 (30 min) : Milos Kojic

A Finite Element Model for Lung Mechanics, Airflow, and Mass Transport

15:35 – 16:00 (25 min) : Nenad Filipovic (Zoom online)

Decision Support System for prediction of Heart Failure disease

16:05 – 16:20 (15 min): Coffe/Refreshments

16:20 – 16:45 (25 min) : Katica (Stevanović) Hedrih

On kinetic contact forces on the balls of radial ball bearings

16:50 – 17:10 (20 min) : Dušan Popov

A new approach to the method of nonlinear coherent states

19:30 – 23:30 (240 min): C o n f e r e n c e D i n n e r (Restaurant Little Bay, Dositejeva 9a)

FRIDAY, 8.09.2023 3rd Conference on Nonlinearity

9:15 – 9:35 (20 min) : Rade Živaljević

The role of polyhedral products in geometric and topological combinatorics

9:40 – 10:00 (20 min) : Ivana Atanasovska

Nonlinearity behaviour of thin composite plates with stress concentrators

10:05 – 10:25 (20 min) : Zoran Ivić

Davydov model of charge and energy transfer in molecular crystals

10:30 – 11:00 (30 min) : Coffe/Refreshments

11:00 – 11:20 (20 min) : Dušan Jovanović

Electron scale magnetic structures in solar wind and near-Earth plasmas

11:25 – 11:45 (20 min): Aleksandar Obradović [\(Zoom online\)](#)

Realization of the brachistochronic motion of a rigid body in a vertical plane using real rough centroids

11:50 – 12:10 (20 min): Željko Čupić

Slow manifold of the intermittent oscillatory reaction

12:15 – 12:35 (20 min): Nikolaj Ostrovski [\(Zoom online\)](#)

Nonlinear mechanisms of active sites transformations in catalytic reactions

12:40 – 14:40 (120 min) : L u n c h

14:40 – 15:00 (20 min) : Zoran Rakić

On nonlocal de Sitter gravity and its cosmological solutions

15:05 – 15:25 (20 min) : Bozidar Jovanović

Integrable models of the Chaplygin ball

15:30 – 15:50 (20 min) : Ana Mucalica

KdV Breathers from Soliton-Cnoidal Wave Interactions

15:55 – 16:10 (15 min): C l o s i n g