

## Workshop Programme

### Sunday, June 15 – Arrival day

- 19.00–20.00 60' *Registration*  
20.30 *Welcome reception*

### Monday, June 16

- 08.00–08.50 50' *Registration*  
08.50–09.00 10' *Workshop Opening*

#### Chairperson Leach P.

- 09.00–09.30 30' **Nikitin A.** Laplace–Runge–Lenz vectors with spin in any dimension  
09.30–10.00 30' **Popovych R.** Potential symmetries and potential conservation laws of linear evolution equations  
10.00–10.30 30' **Šnobl L.** Classification and identification of Lie algebras  
10.30–11.00 30' **Tsamparlis M.** Geometrization of Lie and Noether symmetries and applications  
11.00–11.30 30' *Coffee break*

#### Chairperson Nikitin A.

- 11.30–12.00 30' **Chadzitaskos G.** Optical systems with intensity dependent conversion integrable by finite polynomials  
12.00–12.30 30' **Grandati Y.** Exceptional orthogonal polynomials and generalized Schur polynomials  
12.30–13.00 30' **Hrivnák J.** Generalized trigonometric transforms of affine Weyl groups  
13.00–13.30 30' **Marquette I.** Quadratic algebras of superintegrable systems with monopole interaction and non-central potential  
13.30–14.00 30' **Novotný P.** On  $(\alpha, \beta, \gamma)$ -derivations of Jordan algebras  
14.00–17.00 3h *Lunch break*
-

**Chairperson Šnobl L.**

- 17.00–17.20 20' **Evripidou C.** A construction of generalized Lotka-Volterra systems connected with simple Lie algebras
- 17.20–17.40 20' **Háková L.**  $C$ -orbit functions in image processing
- 17.40–18.00 20' **Karásek D.** Cartan subalgebras and solvable extensions of Lie algebras
- 18.00–18.20 20' **Kurujiywami C.** Algebraic method for group classification of (1+1)-dimensional linear Schrödinger equations
- 18.20–18.40 20' **Nesterenko M.** Realizations of 3- and 6-dimensional Poincaré algebras
- 18.40–19.00 20' **Paliathanasis A.** Type II hidden symmetries of the Laplace equations
- 19.00–19.20 20' **Popovych D.** Contractions with specific contraction matrices

**Tuesday, June 17****Chairperson Damianou P.**

- 09.00–09.30 30' **Ratiu T.** Integrable systems in condensed matter
- 09.30–10.00 30' **Nunes da Costa J.** Hypersymplectic structures
- 10.00–10.30 30' **Fordy A.**  $\mathbb{Z}_N$  graded discrete Lax pairs and discrete integrable systems: I. General structures, classification problem and analysis
- 10.30–11.00 30' **Xenitidis P.**  $\mathbb{Z}_N$  graded discrete Lax pairs and discrete integrable systems: II. Classification results: integrable systems of difference and differential-difference equations
- 11.00–11.30 30' *Coffee break*

**Chairperson Fordy A.**

- 11.30–12.00 30' **Birtea P.** Double bracket vector fields in constrained optimization problems
- 12.00–12.30 30' **Garifullin R.** Discrete nonautonomous quad-equations as Bäcklund auto-transformations for known Volterra and Toda type semidiscrete equations

- 12.30–13.00 30' **Grahovski G.** On integrable discretisations for nonlinear Schrödinger equations on Grassmann algebras
- 13.00–13.30 30' **Kassotakis P.** On a refactorisation of the QRT map
- 13.30–14.00 30' **Yanovski A.** Gauge equivalent integrable equations on  $sl(3)$  with reductions
- 14.00–17.00 3h *Lunch break*

**Chairperson Kiselev A.**

- 17.00–17.20 20' **Baran H.** Five-dimensional Lax-integrable equation, its reductions and recursion operator
- 17.20–17.40 20' **Bibikov P.** Contact differential invariants of ordinary differential equations
- 17.40–18.00 20' **Boyko V.** Equivalence groupoids and group classification of classes of linear ordinary differential equations
- 18.00–18.20 20' **Karadzhov Yu.** Classification of shape-invariant Schrödinger equations
- 18.20–18.40 20' **Krutov A.** Gardner's deformation of the Krasil'shchik–Kersten system
- 18.40–19.00 20' **Kuriksha O.** Group analysis and invariant solutions of variable coefficient Kawahara equations
- 19.00–19.20 20' **Vojećák P.** Symmetry reductions and exact solutions of the 3D rdDym equation

**Wednesday, June 18**

**Chairperson Ratiu T.**

- 09.00–09.30 30' **Cheviakov A.** On conservation laws and potential systems of vorticity-type equations
- 09.30–10.00 30' **Grigoriev Yu.** Application of group analysis to the spatially homogeneous and isotropic Boltzmann equation with sources using its Fourier image
- 10.00–10.30 30' **Kiselev A.** The right-hand side of Jacobi's identity: to be naught or not to be?
- 10.30–11.00 30' **Sakhnovich A.** Generalized Bäcklund–Darboux transformations and potential symmetries
-

11.00–11.30 30' *Coffee break*

**Chairperson Popovych R.**

11.30–12.00 30' **Abd-el-Malek M.** New exact solutions of the KdV-KP equation via the Lie group method

12.00–12.30 30' **Burde G.** Transformations from traveling wave solutions to non-traveling wave solutions of evolution equations

12.30–13.00 30' **Tsyfra I.** Reduction of nonlinear evolution and wave type equations via the non-point symmetry method

13.00–13.30 30' **Yehorchenko I.** Solutions of the system of d'Alembert and eikonal equations

13.30–13.50 20' **Morris R.** A connection between symmetry generators and conservation laws for higher-order partial differential equations

13.50–15.00 *Lunch break*

15.00 *Excursion to Kourion*

**Thursday, June 19 – Departure day**

---