

Sunday, July 2

MORNING SESSION 09:00–12:10

Chairman: Jerzy Kijowski

08:15–09:00 Registration

- 09:00–09:20** Opening
- 09:20–10:15** *Contact geometry as a chapter in symplectic geometry*
Janusz GRABOWSKI, Institute of Mathematics, Polish Academy of Sciences
Poland
- 10:15–10:45** Coffee break
- 10:45–11:40** *Bridging Statistics with Geometry and Mechanics*
Vladimir DRAGOVIĆ, The University of Texas at Dallas
USA
- 11:45–12:10** *Driven cofactor systems of Newton equations and separability of time dependent potentials*
Stefan RAUCH, Linköping University
Sweden

AFTERNOON SESSION 15:00–17:20

Chairman: Katarzyna Grabowska

- 15:00–15:25** *On automorphisms of complex b^k -manifolds*
Michael FRANCIS, University of Western Ontario
Canada
- 15:30–15:55** *A quadric of kinetic energy in the role of phase diagrams — application to the BKL scenario*
Piotr P. GOLDSTEIN, National Centre for Nuclear Research
Poland
- 15:55–16:25** Coffee break
- 16:25–16:50** *Higher-order and Weil Grassmannian as orbit spaces*
Filip PETRÁK, VUT Brno (University of Technology Brno)
Czech Republic
- 16:55–17:20** *Higher order curvature terms corrections in the Raychaudhuri equation*
Johan Michel CHAVEZ TOVAR, CINVESTAV
Mexico

Monday, July 3

MORNING SESSION 09:00–12:15

Chairman: Piotr Goldstein

- 09:00–09:55** *On the interplay between gauge theory and decision theory*
Jean-Pierre MAGNOT, LAREMA – University of Angers
France
- 09:55–10:20** Coffee break
- 10:20–11:15** *Microscopic polarization and magnetization fields: Towards a “post-modern” theory*
John SIPE, University of Toronto
Canada
- 11:20–11:45** *Maxwell’s conjecture for three aligned point charges*
Giorgi KHIMSHIASHVILI, Ilia State University
Georgia
- 11:50–12:15** *Affine Courant algebroid, its coadjoint orbits and related integrable systems*
Anatolij PRYKARPATSKI, Cracow University of Technology / Lviv Polytechnic National University
Poland / Ukraine

AFTERNOON SESSION 15:00–16:50

Chairman: Petr Novotný

- 15:00–15:25** *Quantum mechanics of a single linear graviton*
Maciej PRZANOWSKI, Łódź University of Technology
Poland
- 15:30–15:55** *Resolving the Abraham–Minkowski controversy with symmetry arguments*
Daniel HODGSON, University of Leeds
UK
- 15:55–16:25** Coffee break
- 16:25–16:50** *Quantization in arbitrary coordinate system and transformations of coordinates in quantum mechanics*
Ziemowit DOMAŃSKI, Poznań University of Technology
Poland

18:30 Campfire: hotel Gawra

Tuesday, July 4

MORNING SESSION 09:00–12:25

Anatol Odziejewicz Memorial Session

Chairman: Piotr Kielanowski

- 09:00–09:20** Opening: *Anatol Odziejewicz (1947-2022)*
- 09:20–10:15** *Quantization (55 years later)*
Jerzy KIJOWSKI, Center for Theoretical Physics
Poland
- 10:15–10:45** Coffee break
- 10:45–11:40** *Kostant–Souriau–Odziejewicz quantization of a mechanical system whose classical phase space is a complex manifold*
Sorin DRAGOMIR, University of Basilicata
Italy
- 11:45–12:25** *Clebsch optimal control and its link to variational principles in mechanics*
Tudor RATIU, Shanghai Jiao Tong University
China

12:30 Group photo

AFTERNOON SESSION 15:00–17:50

Anatol Odziejewicz Memorial Session

Chairman: Vladimir Dragović

- 15:00–15:55** *The Camassa–Holm equation—trente ans après: on the interplay between Approximation Theory, Inverse Problems, and non-smooth Solitons*
Jacek SZMIGIELSKI, University of Saskatchewan
Canada
- 16:00–16:25** *Coherent states of the asymmetric harmonic oscillator*
Goce CHADZITASKOS, Czech Technical University in Prague
Czech Republic
- 16:25–16:55** Coffee break
- 16:55–17:20** *Second order q -difference equations solvable by factorization method*
Alina DOBROGOWSKA, University of Białystok
Poland
- 17:25–17:50** *Banach Lie groupoids, algebroids, von Neumann algebras and restricted Grassmannian*
Tomasz GOLIŃSKI, University of Białystok
Poland

Wednesday, July 5

MORNING SESSION 09:00–12:20

Session: Facets of the Yang–Baxter Equation

Chairman: Tomasz Brzeziński

- 09:00–09:55** *Groups, rings and the Yang–Baxter equation*
Leandro VENDRAMIN, Vrije Universiteit Brussel
Belgium
- 09:55–10:25** Coffee break
- 10:25–11:20** *Integrable quantum field theories between modular theory and the Yang–Baxter equation*
Gandalf LECHNER, FAU Erlangen–Nürnberg
Germany
- 11:25–11:50** *From skew braces to the set-theoretic Yang–Baxter equation from affine viewpoint*
Bernard RYBOŁOWICZ, Heriot–Watt University
UK
- 11:55–12:20** *Reflection Equation Algebra and related combinatorics*
Dimitry GUREVICH, Université Polytechnique Hauts-de-France
France

12:30–13:00 Poster session

15:00–18:00 Excursion

Thursday, July 6

MORNING SESSION 09:00–12:20

Chairman: Janusz Grabowski

- 09:00–09:55** *Quantum groups, discrete Magnus expansion, pre-Lie & tridendriform algebras*
Anastasia DOIKOU, Heriot–Watt University
UK
- 09:55–10:25** Coffee break
- 10:25–10:50** *Quasiderivations and Quantum Mishchenko–Fomenko Construction*
Yasushi IKEDA
Japan
- 10:55–11:20** *Stability Theorem for \mathbb{Z}_2^n -Lie supergroups*
Fatemeh NIKZAD PASIKHANI, Institute for Advanced Studies in Basic Sciences
Iran
- 11:25–11:50** *Lie affgebras revisited*
Tomasz BRZEZIŃSKI, Swansea University / University of Białystok
UK / Poland
- 11:55–12:20** *Lie Symmetry Analysis of the Charney–Hasegawa–Mima equation*
Dušan NAVRÁTIL, Brno University of Technology
Czech Republic

AFTERNOON SESSION 15:00–16:50

Chairman: Gandalf Lechner

- 15:00–15:25** *Spherical pedal coordinates*
Petr BLASCHKE, Silesian University in Opava
Czech Republic
- 15:30–15:55** *Groupoid Banach algebras*
Krzysztof BARDADYN, University of Białystok
Poland
- 15:55–16:25** Coffee break
- 16:25–16:50** *Noncommutative Cartan C^* -subalgebras*
Bartosz KWAŚNIEWSKI, University of Białystok
Poland

18:00 Conference dinner: Hotel Białowieski (Stoczek 218 b)

Friday, July 7

MORNING SESSION 09:00–12:50

Chairman: Jiří Hrivnák

- 09:00–09:55** *Rational approximation, multiple orthogonal polynomials, and integrability*
Adam DOLIWA, University of Warmia and Mazury
Poland
- 09:55–10:25** Coffee break
- 10:25–11:20** *Poisson reductions of master integrable systems on doubles of compact Lie groups*
László FEHÉR, Wigner RCP / University of Szeged
Hungary
- 11:25–11:50** *Unraveling Soft Squeezing Transformations*
Jesús FUENTES, University of Luxembourg
Luxembourg
- 11:55–12:20** *Multidimensional integrable systems and Jacobi structures*
Artur SERGYEV, Silesian University in Opava
Czech Republic
- 12:25–12:50** *Complete classification of local conservation laws for generalized Cahn–Hilliard–Kuramoto–Sivashinsky equation*
Pavel HOLBA, Silesian University in Opava
Czech Republic

AFTERNOON SESSION 15:00–17:50

Session: Infinite Dimensional Geometry

Chairman: Jean-Pierre Magnot

- 15:00–15:25** *Groupoid techniques in Hilbert space operator theory*
Daniel BELTIȚĂ, Institute of Mathematics “Simion Stoilow” of the Romanian Academy
Romania
- 15:30–15:55** *The Universal Teichmüller space and the restricted Grassmannian*
Alice Barbara TUMPACH, Wolfgang Pauli Institut / Lille University
Austria
- 15:55–16:25** Coffee break
- 16:25–16:50** *On partial Dirac structure on a Banach manifolds and constraint dynamical systems*
Fernand PELLETIER, Université Savoie Mont Blanc
France
- 16:55–17:50** *Hamiltonian structure of rational isomonodromic deformation systems*
John HARNAD, Université de Montréal / Concordia University
Canada

Saturday, July 8

MORNING SESSION 09:00–12:20

Chairman: Jesús Fuentes

- 09:00–09:55** *Twisted perspectives on quantum mechanics*
Douglas LUNDHOLM, Uppsala University
Sweden
- 09:55–10:25** Coffee break
- 10:25–10:50** *Using contact transformations for construction of exact solutions of the Schrödinger equation with power, logarithm and derivative nonlinearities*
Iryna YEHORCHENKO, Institute of Mathematics of the NAS of Ukraine
Ukraine
- 10:55–11:20** *Discrete mechanics in non-uniform time α -lattices*
Mahouton Norbert HOUNKONNOU, University of Abomey-Calavi
Benin
- 11:25–11:50** *The cosmological constant and the minimal acceleration of MOND from precanonical quantum gravity*
Igor KANATCHIKOV, National Center of Quantum Information
Poland
- 11:55–12:20** *Predicting Nonabelian Anyons*
Gerald GOLDIN, Rutgers University
USA