

# Sunday, July 2

MORNING SESSION 09:00–12:45

Chairman: Armen Sergeev

- 09:00–09:10** Opening
- 09:10–10:05** *Symmetric tensors and the geometry of subvarieties of  $P^N$*   
**Fedor BOGOMOLOV**, New York University, USA
- 10:10–11:05** *Information Geometry on diffeomorphism groups*  
**Gerard MISIOLEK**, University of Notre Dame, USA
- 11:05–11:35** Coffee break
- 11:35–12:15** *Almost homogeneous Schroedinger operators*  
**Jan DEREZIŃSKI**, University of Warsaw, Poland
- 12:20–12:45** *Differential equations on polytopes: Laplacians and Lagrangian manifolds, corresponding to semi-classical motion*  
**Andrei SHAFAREVICH**, Moscow State University, Russia

AFTERNOON SESSION 14:30–17:20

Chairman: Gerard Misiolek

- 14:30–15:10** *Non-smooth strings and noncommutative geometry*  
**Armen SERGEEV**, Steklov Mathematical Institute, Russia
- 15:15–15:55** *Transfer Matrix Formulation of Scattering Theory, Invisibility, and Reciprocity in Two and Three Dimensions*  
**Ali MOSTAFAZADEH**, Koç University, Turkey
- 15:55–16:25** Coffee break
- 16:25–16:50** *Higher order curvature tensors, higher order Bianchi identities*  
**Jerzy KIJOWSKI**, Centrum Fizyki Teoretycznej, PAN, Poland
- 16:55–17:20** *Recursion operator in a noncommutative Minkowski phase space*  
**Mahouton Norbert HOUNKONNOU**, University of Abomey-Calavi, Republic of Benin

# Monday, July 3

MORNING SESSION 09:00–12:05

Chairman: Yvette Kosmann-Schwarzbach

- 09:00–09:55** *Classical and quantum integrable systems arising from Symplectic Field Theory*  
**Yakov ELIASHBERG**, Stanford University, USA
- 10:00–10:55** *Limit shapes in solvable models in statistical mechanics*  
**Nicolai RESHETIKHIN**, University of California, Berkeley, United States
- 10:55–11:25** Coffee break
- 11:25–12:05** *A new approach to computation the Special geometry of Moduli spaces for a Calabi–Yau manifold*  
**Alexander BELAVIN**, Landau Institute for Theoretical Physics, Russia

AFTERNOON SESSION 14:30–17:20

Chairman: Michael Pevzner

- 14:30–14:55** *Geometrization of graded manifolds of type  $\Delta$*   
**Elizaveta VISHNYAKOVA**, Universidade Federal de Minas Gerais, Brazil
- 15:00–15:25** *Surfaces which behave like vortex lines*  
**Marián FECKO**, Comenius University, Slovakia
- 15:30–15:55** *Jordan Algebra and Kepler Problem*  
**Guowu MENG**, Hong Kong University of Science and Technology, Hong Kong
- 15:55–16:25** Coffee break
- 16:25–16:50** *Discrete Cosine and Sine transforms on Honeycomb lattice*  
**Jiří HRIVNÁK**, Czech Technical University in Prague, Czech Republic
- 16:55–17:20** *Non-crystallographic branching rules*  
**Marzena SZAJEWSKA**, Uniwersytet w Białymstoku, Poland

# Tuesday, July 4

MORNING SESSION 09:00–12:50

Chairman: Nicolai Reshetikhin

- 09:00–09:55** *Beyond recursion operators*  
**Yvette KOSMANN-SCHWARZBACH**, Ecole Polytechnique (retired), France
- 10:00–10:55** *Conformally covariant symmetry breaking operators on differential forms and some applications*  
**Toshiyuki KOBAYASHI**, The University of Tokyo, Japan
- 10:55–11:25** Coffee break
- 11:25–11:50** *Conformal symmetry breaking operators on AdS spaces*  
**Michael PEVZNER**, University of Reims, France
- 11:55–12:20** *Quasidiagonality of  $C^*$ -algebras of generalized  $ax + b$  groups*  
**Daniel BELTIȚĂ**, Institute of Mathematics “Simion Stoilow” of the Romanian Academy, Romania
- 12:25–12:50** *Higher algebroids via differential relations*  
**Mikołaj ROTKIEWICZ**, Warsaw University, Poland

AFTERNOON SESSION 14:30–17:30

Chairman: Tirthankar Bhattacharyya

- 14:30–15:10** *Reproducing kernels on the space of univalent functions*  
**Yurii NERETIN**, Institute for Theoretical and Experimental Physics, Russia
- 15:15–15:40** *Conic sub-Hilbert-Finsler structure on a Banach manifold*  
**Fernand PELLETIER**, Université de Savoie Mont Blanc, France
- 15:45–16:10** *On Dirac type operators determined by skew-symmetric 2-tensors on anchored vector bundles*  
**Bogdan BALCERZAK**, Łódź University of Technology, Poland
- 16:10–16:35** Coffee break
- 16:35–17:00** *On Spherically Symmetric Finsler metrics*  
**Nasrin SADEGH ZADEH**, University of Qom, Iran
- 17:05–17:30** *States over the  $*$ -algebra of formal series*  
**Jaromir TOSIEK**, Łódź University of Technology, Poland

# Wednesday, July 5

MORNING SESSION 09:00–12:00

Chairman: Andrei Shafarevich

- 09:00–09:55** *Fundamental fermions as inner noncommutative forms*  
**Ludwik DĄBROWSKI**, SISSA, Italy
- 10:00–10:40** *Gauge-invariant quasi-free states on the algebra of the anyon commutation relations*  
**Eugene LYTVYNOV**, Swansea University, United Kingdom
- 10:40–11:05** Coffee break
- 11:05–11:30** *Topology and K-theory of noncommutative weighted projective spaces*  
**Tomasz BRZEZIŃSKI**, Swansea University / University of Białystok, United Kingdom / Poland
- 11:35–12:00** *Decompactifying the fuzzy sphere*  
**Andrzej SITARZ**, Jagiellonian University, Poland

POSTER SESSION 12:00–13:00

# Thursday, July 6

MORNING SESSION 09:00–13:00

S. Twareque Ali Memorial Session

Chairman: Jean-Pierre Gazeau

- 09:00–09:15** Opening
- 09:15–09:45** *Diffeomorphism group representations in relativistic quantum field theory*  
**Gerald GOLDIN**, Rutgers University, USA
- 09:50–10:30** *Classical Statistical and Quantum Mechanics on Phase Space*  
**Franklin SCHROECK**, University of Denver, United States
- 10:35–11:00** *Universal Markov Kernels for Quantum Observables*  
**Roberto BENEUCI**, Università della Calabria, Italy
- 11:00–11:30** Coffee break
- 11:30–12:00** *Coherent state map quantization*  
**Anatol ODZIJEWICZ**, Uniwersytet w Białymstoku, Poland
- 12:05–12:30** *Braided quantum group structure on quantum plane*  
**Sutanu ROY**, National Institute of Science Education and Research, India
- 12:35–13:00** *Personal recollections about S. Twareque Ali*

AFTERNOON SESSION 14:30–17:30

S. Twareque Ali Memorial Session

Chairman: Gerard Goldin

- 14:30–15:10** *Spectral Analysis of Semibounded Operators by truncation*  
**Kalyan Bidhan SINHA**, J.N. Centre for Advanced Scientific Research, India
- 15:15–15:40** *Symplectic geometry of the moduli space of projective structures*  
**Marco BERTOLA**, Concordia University / SISSA, Canada
- 15:40–16:05** Coffee break
- 16:05–16:30** *2D Covariant Affine Integral Quantization(s)*  
**Jean-Pierre GAZEAU**, University Paris-Diderot, France
- 16:35–17:00** *Coherent states associated to the Jacobi group and Berezin quantization of the Siegel–Jacobi ball*  
**Stefan A.A. BERCEANU**, “Horia Hulubei” National Institute of Physics and Nuclear Engineering, Romania
- 17:05–17:30** *Bi-coherent states*  
**Fabio BAGARELLO**, Università di Palermo, Italy

# Friday, July 7

MORNING SESSION 09:00–12:35

Chairman: Jan Dereziński

- 09:00–09:55** *Integrable magnetic geodesic flows on 2-torus: new example via quasi-linear system of PDEs*  
**Andrey MIRONOV**, Sobolev Institute of Mathematics, Russia
- 10:00–10:55** *Special Bohr–Sommerfeld geometry: from Geometric Quantization to Mirror Symmetry*  
**Nikolai TYURIN**, Bogoliubov Laboratory of Theoretical Physics / High School of Economics, Russia
- 10:55–11:25** Coffee break
- 11:25–12:05** *The reasonable effectiveness of mathematical deformation theory in physics*  
**Daniel STERNHEIMER**, Rikkyo University / Université de Bourgogne, France
- 12:10–12:35** *Quantum chaos and Hurwitz numbers*  
**Aleksandr ORLOV**, Institute of Oceanology / Higher School of Economics, Russia

AFTERNOON SESSION 14:30–17:20

Chairman: Stefan Berceanu

- 14:30–14:55** *Star product and star exponential*  
**Akira YOSHIOKA**, Tokyo University of Science, Japan
- 15:00–15:25** *Electromagnetic field quantization in the presence of external fields and its applications*  
**Fardin KHEIRANDISH**, University of Kurdistan, Iran
- 15:25–15:55** Coffee break
- 15:55–16:20** *Real Lipschitz structures*  
**Calin LAZAROIU**, Institute for Basic Science, South Korea
- 16:25–16:50** *A differential model for B-type Landau–Ginzburg theories*  
**Mirela BABALIC**, Institute for Basic Science, South Korea
- 16:55–17:20** *The dressing field method of gauge symmetry reduction: presentation and examples*  
**Jeremy ATTARD**, Centre de Physique Théorique, France

# Saturday, July 8

MORNING SESSION 09:00–12:20

Chairman: Andrey Mironov

- 09:00–09:55** *Quantum integrable systems and torsion free sheaves on algebraic varieties*  
**Alexander ZHEGLOV**, Moscow State University, Russia
- 10:00–10:55** *The geometric significance of Toeplitz kernels in the restricted Grassmannian*  
**Gabriel LAROTONDA**, CONICET / Universidad de Buenos Aires, Argentina
- 10:55–11:25** Coffee break
- 11:25–11:50** *Aperiodicity, topological freeness and pure outeriness: from group actions to Fell bundles*  
**Bartosz KWAŚNIEWSKI**, Uniwersytet w Białymstoku, Poland
- 11:55–12:20** *Non regular symplectic reduction and quantization of singular spaces*  
**Victor PALAMODOV**, Tel Aviv University, Israel

AFTERNOON SESSION 14:30–17:05

Chairman: Kalyan Bidhan Sinha

- 14:30–15:10** *The Unreasonable Efficiency of Mathematics (E.Wigner): real or imaginary danger?*  
**Bogdan MIELNIK**, CINVESTAV, Mexico
- 15:15–15:40** *Complex oscillation theory and semi-finite gap problem of Whittaker–Hill equation*  
**Edmund Y.-M. CHIANG**, Hong Kong University of Science and Technology, Hong Kong
- 15:40–16:10** Coffee break
- 16:10–16:35** *Dirac operator on a noncommutative Toeplitz torus*  
**Elmar WAGNER**, Michoacan University, Mexico
- 16:40–17:05** *The harmonic oscillator in a sector of plane and the angular momentum theory*  
**Goce CHADZITASKOS**, Czech Technical University in Prague, Czech Republic