# Monday, 13 December, IUM

- **9:45 - 10:00**    *Opening*

  **Chairman: Joseph Krasil'shchik**

- **10:00 - 10:45**    Dmitri Alekseevsky  -  *Special Vinberg cones and their application to supergravity*
- **10:50 - 11:35**    Giovanni Manno  -  *Metrics admitting projective symmetries*
- **11:40 - 11:55**    ☕ *Coffee break*
- **11:55 - 12:40**    Vladimir Rubtsov  -  *Lie algebroid cohomology: from Der to Lie algebroid non-abelian extensions*
- **12:45 - 13:30**    Francesco Oliveri  -  *Automatic determination of optimal systems of Lie subalgebras*
- **13:35 - 13:55**    Michael Vinogradov  -  *n-ary Batalin-Vilkovysky brackets*

- **14:00 - 15:00**    🍽 *Lunch*

  **Chairman: Oleg Morozov**

- **15:00 - 15:45**    Alexander Mikhailov  -  *Quantisation of free associative dynamical systems*
- **15:50 - 16:35**    Theodore Voronov  -  *On thick morphisms of (super)manifolds*
- **16:40 - 16:55**    ☕ *Coffee break*
- **16:55 - 17:40**    Hovhannes Khudaverdian  -  *Non-linear homomorphisms of algebras of functions are induced by thick morphisms*
- **17:45 - 18:05**    Jim Stasheff  -  *Higher holonomy. Representations up to homotopy*
- **18:30**    *Alexandre Vinogradov Memorial Session*

# Tuesday, 14 December, MSU

### Chairman: Michael Vinogradov

- **10:00 - 10:45**   Alexei Bocharov  -  *Mathematics of Quantum Computing: Ideas and Reality*
- **10:50 - 11:35**   Giuseppe Marmo  -  *A Manifold view point of Lie Algebras*
- **11:40 - 11:55**   ☕ *Coffee break*
- **11:55 - 12:40**   Konstantin Druzhkov  -  *On the relation between symplectic structures and variational principles in continuum mechanics*
- **12:45 - 13:30**   Igor Khavkine  -  *Applications of complexes of differential operators in gauge theories*
- **13:35 - 13:55**   Jacob Kryczka  -  *Generalized Atiyah-like sequences from differential operators in graded commutative algebras*

- **14:00 - 15:00**   🍽 *Lunch*

### Chairman: Hovhannes Khudaverdian

- **15:00 - 15:45**   Alexey Samokhin  -  *Conservation laws in action: an approach and implementations*
- **15:50 - 16:35**   Luca Vitagliano  -  *Alexandre M. Vinogradov's Cohomological Geometry of Partial Differential Equations (from my personal point of view)*
- **16:40 - 16:55**   ☕ *Coffee break*
- **16:55 - 17:40**   Giorgio Tondo  -  *Haantjes brackets and integrability*
- **17:45 - 18:05**   Ekaterina Shemyakova  -  *On super Plücker embedding and cluster algebras*

# Wednesday, 15 December, MSU

**Chairman: Igor Khavkine**

- **10:00 - 10:45**    Georgy Sharygin  -  *Quasi-differential operators on universal enveloping algebras and their applications*
- **10:50 - 11:35**    Alexander Aksenov  -  *Group classification and conservation laws of the system of equations of two-dimensional shallow water over uneven bottom*
- **11:40 - 11:55**    ☕ *Coffee break*
- **11:55 - 12:40**    Maxim Grigoriev  -  *Presymplectic gauge PDEs and Batalin-Vilkovisky quantization*
- **12:45 - 13:30**    Dimitri Gurevich  -  *q-Analogs of differential operators and their applications*
- **13:35 - 13:55**    Anna Duyunova  -  *Symmetries and differential invariants of the Navier-Stokes system on a space curve*

- **14:00 - 15:00**    🍽 *Lunch*

**Chairman: Jan Slovák**

- **15:00 - 15:45**    Mikhail Sheftel  -  *Recursion operators and bi-Hamiltonian representations of cubic evolutionary (2+1)-dimensional systems*
- **15:50 - 16:35**    Irina Bobrova  -  *Matrix Painlevé equations*
- **16:40 - 16:55**    ☕ *Coffee break*
- **16:55 - 17:40**    Dmitry Millionschikov  -  *Lie algebras of maximal class*
- **17:45 - 18:05**    Sergey Tychkov  -  *The quotient of the Navier-Stokes system on a space curve*

# Thursday, 16 December, IUM

**Chairman: Andrey Krutov**

- **10:00 - 10:45**  Alexei Sossinsky  -  *Energy functionals and the normal forms of knots and plane curves*
- **10:50 - 11:35**  Jan Slovák  -  *Generalized Wünsch calculus for parabolic geometries*
- **11:40 - 11:55**  ☕ *Coffee break*
- **11:55 - 12:40**  Gaetano Vilasi  -  *Can gravity be repulsive?*
- **12:45 - 13:30**  Sergei Lando  -  *Polynomial graph invariants and the KP hierarchy*
- **13:35 - 13:55**  Olga Kunakovskaya  -  *Boundary topological indices of a pair of vector fields and existence theorems*

- **14:00 - 15:00**  🍽 *Lunch*

**Chairman: Konstantin Druzhkov**

- **15:00 - 15:45**  Andrei Pogrebkov  -  *Negative numbers of times of integrable hierarchies*
- **15:50 - 16:35**  Gerard Helminck  -  *Darboux transformations of the KP hierarchy, its strict version and their reductions*
- **16:40 - 16:55**  ☕ *Coffee break*
- **16:55 - 17:40**  Diego Catalano Ferraioli  -  *Scalar differential invariants of 2-dimensional Killing foliations*
- **17:45 - 18:05**  Fatemeh Ahangari  -  *Geometric analysis of metric Legendre foliated cocycles on contact manifolds via SODE structure*
- **18:30**  🍽 *Conference Dinner*

# Friday, 17 December, IUM

**Chairman: Alexey Samokhin**

- **10:00 - 10:45**    Valentin Lychagin  -  *Continuum mechanics of media with inner structure*
- **10:50 - 11:35**    Sergey Agafonov  -  *Darboux integrability for diagonal systems of hydrodynamic type*
- **11:40 - 11:55**    ☕ *Coffee break*
- **11:55 - 12:40**    Vladimir Chetverikov  -  *Coverings and integrable pseudosymmetries of differential equations*
- **12:45 - 13:30**    Alexey Remizov  -  *Smooth local normal forms of hyperbolic Roussarie vector fields*
- **13:35 - 13:55**    Andrey Krutov  -  *Holomorphic relative Hopf modules over the irreducible quantum flag manifolds*

- **14:00 - 15:00**    🍽 *Lunch*

**Chairman: Alexander Verbovetsky**

- **15:00 - 15:45**    Sergei Igonin  -  *Algebra and geometry of Lax representations and Bäcklund transformations for (1+1)-dimensional partial differential and differential-difference equations*
- **15:50 - 16:35**    Anatolij Prykarpatsky  -  *On invariant differential ideals and homomorphic representations of functional derivations in differential rings*
- **16:40 - 16:55**    ☕ *Coffee break*
- **16:55 - 17:40**    Yuri Sachkov  -  *Sub-Riemannian geometry on the group of motions of the plane*
- **17:45 - 18:05**    Matteo Gorgone  -  *Approximate Noether symmetries and approximate conservation laws*
- **18:10 - 18:30**    Alexey Podobryaev  -  *Homogeneous geodesics in sub-Riemannian geometry*
- **18:30**    *Closing*