Quantum Theory and Symmetries

Conference program

28.07.2025

	Main Building 5th floor **Opening ceremony** Plenary session
10:00-10:45	**A Unified Algebraic Framework for Generalized Quantum Statistics** **Neli Stoilova (Bulgaria)**
11:15-12:00	**Free field construction the 4-dimensional Heterotic string compactified on Calabi-Yau manifolds of Berglund-Hubsch type** **Alexander Belavin (Russia)**
12:00-12:45	**A Z3-symmetric Quantum Chromodynamics with Asymptotic Connement** **Richard Kerner Online (France**
	Main Building 5th floor **Section A**
14:00-14:30	**Applying a computational algebra and data science pipeline to Clifford algebra and cluster algebra data** **Pierre-Philippe Dechant (Leeds)**
14:30-15:00	**Integrable dissipative Bose-Hubbard model** **Junpeng Cao (China)**
15:00-15:30	**Super invariants and super Plcker relations** **Barrena Maria Antonia Lledo (Spain)**
15:30-16:00	**WKB approximation to boson dark matter** **L.C.Rohana Wijewardhana (United States)** Online
16:30-17:00	**Non-relativistic Approximation for a Spin 3/2 Particle, in Presence of Electromagnetic and Gravitational Fields** **Alina Ivashkevich (Belarus)**
17:00-17:30	**Algebraic methods to solve the Yang-Baxter and higher simplex equations** **Pramod Padmanabhan (India)**

17:30-18:00	**Homological properties of Quantum Heisenberg Algebras** **Hector Suarez (Colombia)**
18:00-18:30	**Duality for contractions of Lie algebras** **Eyal Subag (Israel)** Online
	YSU Hall after Palyan **Section B**
14:00-14:30	**Refined Painleve/gauge theory correspondence and quantum tau functions** **Anton Shchechkin (Italy)**
14:30-15:00	**Quantum Miniatures: Quantum Theories with Restricted Sets of Observables** **Stefan Weigert (United Kingdom)**
15:00-15:30	**Semiclassical approach to form factors in integrable models of quantum field theory** **Michael Lashkevich (Russia)**
15:30-16:00	**Two-time physics, Carroll symmetry and Jordan algebras** **Alexander Kamenshchik (Italy)**
16:30-17:00	**Instabilities of near-extremal black branes** **Alex Buchel (Canada)**
17:00-17:30	**Cnoidal black holes and integrable symmetries in AdS_3 gravity** **Francisco Correa (Chile)**
17:30-18:00	**Modular bootstrap for BPS black holes** **Sergey Alexandrov (France)**
18:00-18:30	**Unification of Conformal and Fuzzy Gravities with Internal Interactions** **George Zoupanos (Greece)** Online

29.07.2025

	Main Building 5th floor **Plenary session**
9:00-9:45	**Quantization of the Theory of Topological Insulators** **Armen Sergeev (Russia)** Online

9:45-10:30	**N = 2 Higher Spins by Harmonic Superspace Methods** **Evgeny Ivanov (Dubna)**
11:00-11:45	**On various aspects of S-move matrix in N=1 super Liouville field theory** **Gor Sarkissian (Armenia, Dubna)**
11:45-12:30	**Entanglement entropy production in deep inelastic scattering** **Vladimir Korepin (United States)** Online
	Main Building 5th floor **Section A**
14:00-14:30	**Self-Confined Quarks: A General Relativistic Perspective on Strong Nuclear Forces** **Yousef Sobouti (Iran)**
14:30-15:00	**Coulomb-Stark problem for classical spinning particle** **Dmitry Kaparulin (Russia)**
15:00-15:30	**Landau Levels and Newton-Hooke Dualities** **Todor Popov (Bulgaria)**
15:30-16:00	**Inhomogeneous Abstract Evolution Equations in Besov Spaces** **Yoritaka Iwata (Japan)** Online
16:30-17:00	**Separation of variables for the Schroedinger equation with vector and scalar potentials** **Giovanni Rastelli (Italy)** Online
17:00-17:30	**Stability for poset representation** **Robinson Serna (Colombia)**
17:30-18:00	**On the imaginary gauge in Zernike system and Higgs oscillator** **Vahagn Abgaryan (Armenia)**
18:00-18:30	**Zernike system on hyperboloids** **Alexander Yakhno (Mexico)** Online
	YSU Hall after Palyan **Section B**

14:00-14:30	**Quadratic Dunkl algebras and symmetries of rational Calogero models** **Tigran Hakobyan (Armenia)**
14:30-15:00	**Definitional and Computational Formulas in Quantum Mechanics** **Paolo Rocchii (Italy)**
15:00-15:30	**R-matrix valued Lax pair for elliptic Calogero systems and related integrable long-range spin chains** **Maria Matushko (Russia)**
15:30-16:00	**Interpolating trigonometric R-matrices for adjoint representations** **Bruce Westbury (United Kingdom)**
16:30-17:00	**Equations and recursive relation for the S-matrix of Liouville theory** **George Jorjadze (Georgia)** Online
17:00-17:30	**Exact expressions for the 5-Point Liouville conformal block with a level-two degenerate field insertion** **Hasmik Poghosyan (Armenia)**
17:30-18:00	**Lie-Poisson electrodynamics** **Maxim Kurkov (Italy)**
18:00-18:30	**Root-TT Deformations on Causal Self-Dual Electrodynamic Theories** **Hossin Babaei Aghbolagh (China)** Online

30.07.2025

10:00-17:00	Khor Virap, Noravank, Areni **Excursion**
18:30-23:00	Banquet – 7Qar, Garni **Banquet**

31.07.2025

	Main Building 5th floor **Plenary session**

9:00-9:45	**Invariants of knots with a flat connection in the complement** **Nicolai Reshetikhin (China)** Online
9:45-10:30	**Representations of the Poincare Group and Relativistic Fields** **Alexey Isaev (Dubna)** Online
11:00-11:45	**Quantum Integrability in Finite Hilbert Spaces** **Emil Yuzbashyan (United States)**
11:45-12:30	**Interacting spinning black holes and massive higher spin fields** **Mirian Tsulaia (Japan)** Online
	Main Building 5th floor **Section A**
14:00-14:30	**Generalized relativistic second-order dissipative hydrodynamics: coupling different rank tensors** **Arus Harutyunyan (Armenia)**
14:30-15:00	**Propagators for Negative-energy and Tachyonic Solutions of Relativistic Equations** **Valeriy Dvoeglazov (Mexico)** Online
15:00-15:30	**Capturing magic angles in twisted bilayer graphene from information theory markers** **Alberto Mayorgas (Spain)**
15:30–16:00	**On the registration of massless Bose particle-hion: A new mechanism of vacuum polarization** **Grigor Movsesyan (Armenia)**
16:30–17:00	**C N -Smorodinsky-Winternitz system and CP N -Rosochatius system** **Hovhannes Shmavonyan (Armenia)**
17:00–17:30	**OPE and Thermal Holography** **Andrei Parnachev (Ireland)**
17:30–18:00	**New equation for a spin 1/2 particle with three additional characteristics in presence of electromagnetic and gravitational fields** **Viktor Red'kov (Belarus)**

18:00–18:30	**Invariant classes of framed meromorphic functions on foliations** **Alexander Zuevsky (Czech Republic)** Online
	YSU Hall after Palyan **Section B**
14:00–14:30	**Resolution of singularities in infinite-derivative gravity theories** **Alexey Koshelev (China)**
14:30–15:00	**Casimir effect for the Proca field** **Aram Saharian (Armenia)**
15:00–15:30	**Democracy in field theory** **Karapet Mkrtchyan (United Kingdom)**
15:30–16:00	**Uncertainty Relation for Retarded Gravity** **Asher Yahalom (Israel)** Online
16:30–17:00	**New slow-roll approximations for modified gravity inflationary models** **Sergey Vernov (Russia)**
17:00–17:30	**On beta-function of supersymmetric sigma models** **Mikhail Alfimov (Russia)**
17:30–18:00	**Gravitational Edge Modes in 3d gravity** **Sejin Kim (South Korea**
18:00–18:30	**Adapting the Kontsevich graph calculus to the class of NambuPoisson brackets: when the invisible becomes crucial** **Mollie Susan Jagoe Brown (The Netherlands)** Online

01.08.2025

	Main Building 5th floor **Plenary session**
09:00–09:45	**On A Unified Derivation of Internal and Relativistic Symmetries from Projective Geometry** **Rolf Dahm (Germany)**
09:45–10:30	**Solitons in Quantum Field Theory**

Jarah Evslin (China)	
11:00–11:45	**Supersymmetry without fermions: the Nicolai map** **Olaf Lechtenfeld (Germany)**
11:45–12:30	**Langlands Duality and Invariant Differential Operators** **Vladimir Dobrev (Bulgaria)** Online
	Main Building 5th floor **Section A**
14:00–14:30	**(Anti-)Stokes Scattering on the Domain Wall String** **Hui Liu (Armenia)**
14:30–15:00	**Reshetikhins Condition Implies Quantum Integrability** **Zhao Zhang (Norway)**
15:00–15:30	**Hybrid Integrable Systems** **Ivan Sechin (China)**
15:30–16:00	**Generalized classical and quantum Zernike Hamiltonians** **Francisco J. Herranz (Spain)**
16:30–17:00	**Schwarzian Integrals and Decomposition of Wiener Measure on Orbits of Group Diffeomorphisms Action** **Evgeniy Shavgulidze (Russia)**
17:00–17:30	**Exploring X-states entanglement/separability and the sign-definiteness of the Wigner functions of a pair of qubits** **Astghik Torosyan (Armenia, Dubna)**
17:30–18:00	**N-bein formalism for the parameter space of quantum geometry** **Carlos Andres Velasquez Escamilla (Mexico)**
18:00–18:30	**Bogoliubov method in desription of nuclear rotation** **Elena Kolganova (Dubna)**
	YSU Hall after Palyan **Section B**
14:00–14:30	**The cosmological dynamics of f(R+μG) models** **Ekaterina Pozdeeva (Russia)**
14:30–15:00	

	Interrelations among Solvable Problems in Quantum Mechanics and Quantization Rules related to Classical Orthogonal Polynomials **Yuta Nasuda (Japan)**
15:00–15:30	**Bridging Gauge Theories and Spin Models** **Mustafa Mullahasanoglu (Turkey)** Online
15:30–16:00	**Identities with determinants: Jacobians and Wronskians** **Arthemy Kiselev (The Netherlands)** Online
16:30–17:00	**High-spin measurements in an arbitrary two-qudit state** **Christian Louis Hanotel (Russia)**
17:00–17:30	**Supersymmetric 1D sigma models via spin chains** **Dmitri Bykov (Russia)**
17:30–18:00	**Integrable chiral deformation of the Heisenberg spin chain** **Chenan Wei (Armenia)**
18:00–18:30	**Quantum motion of a single photon and the probability of its transition to one of the Bell states** **Ashot Gevorkyan (Armenia)**

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