

*Geometry, Integrability and Supersymmetry*  
*22-27 August 2021, Yerevan, Armenia*

**PROGRAM**

**23 August**

09.10-09.40 Registration  
09.40-10.00 Opening

*David Karakhanyan Memorial Session*

10.00-10.30 **Alexey Isaev,** *Split Casimir operator for simple Lie algebras, solutions of Yang-Baxter equations and Vogel parameters*  
10.30-11.00 **Ruben Mkrtchyan,** *Chern-Simons on  $S^3$  and refined topological strings*

*Coffee break*

11.30-12.00 **Nikolay Tyurin,** *Special Bohr-Sommerfeld geometry*  
12.00-12.30 **Hrachya Babujian,** *Asymptotic factorization of  $n$ -particle  $SU(N)$  form factors*  
12.30-13.00 **Cestmir Burdik,** *Nested Bethe Ansatz for RTT-Algebra  $A_n$*

*Lunch break*

14.00-14.30 **Zhirayr Avetisyan,** *Global hyperbolicity and factorization in cosmological models*  
14.30-15.00 **Maneh Avetisyan,** *Universalizing the refined Chern-Simons on  $S^3$*   
15.00-15.30 **Mikhail Podoinitsyn,**  *$D$ -dimensional spin projection operators for arbitrary type of symmetry via Brauer algebra idempotents*

**18.00 Welcome party, “Olympia” hotel**

## **24 August**

10.00-10.30     **Andrei Mironov,**     *Recent advance in integrability: duality and double-elliptic systems*

10.30-11.00     **Gleb Arutyunov,**     *New integrable coset sigma models*

### ***Coffee break***

11.30-12.00     **Sergey Krivonos,**     *Integrability of  $N=2$  supersymmetric Ruijsenaars-Schneider model*

12.00-12.30     **Sergey Fedoruk,**     *Gauged models of supersymmetric hyperbolic Calogero systems*

12.30-13.00     **Tigran Hakobyan,**     *Dynamical symmetry in generalized Calogero model*

### ***Lunch break***

14.00-14.30     **Levon Mardoyan,**     *An alternative model of spherical oscillator*

14.30-15.00     **Stepan Sidorov,**     *Spin multiplets  $(3,4,1)$  of supersymmetric mechanics*

15.00-15.30     **Ivan Masterov,**     *Coupling-constant metamorphosis in  $SL(2,R)$ -invariant systems*

## **25 August**

10.00-10.30    **Hovhannes Khudaverdian,**    *Lagrangian surfaces of different signature in odd symplectic geometry and in Batalin-Vilkovisky formalism*

10.30-11.00    **Alexei Rosly,**    *On the Self-Dual Yang-Mills Theory*

### ***Coffee break***

11.30-12.00    **Yakov Shnir,**    *Boson Constellations*

12.00-12.30    **Sergey Pavluchenko,**    *Cosmological dynamics in spatially-curved Einstein-Gauss-Bonnet cosmologies*

12.30-13.00    **Nikolay Kozyrev,**    *Superfield Pasti-Sorokin-Tonin action*

### ***Lunch break***

14.00-14.30    **Elena Kolganova,**    *Universal three-body physics and some examples*

14.30-15.00    **Ashot Gevorkyan,**    *Hidden Dynamical Symmetry and Quantum Thermodynamics From the First Principles*

15.00-15.30    **Melik Karapetyan,**    *Commutator of higher spin gauge transformations in linear Approach*

**18.30 Workshop dinner, “Edem Garden” restaurant**

## **26 August**

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|-------------|---------------------------|---|
| 10.00-10.30 | <b>Nikita Nekrasov,</b>   | <i>Supersymmetric gauge theories and quantum integrability: status report</i> |
| 10.30-11.00 | <b>Karapet Mkrtchyan,</b> | <i>Coloured Poincaré Algebra and Corresponding Particles</i>                  |
| 11.00-11.30 | <b>Yegor Zenkevich,</b>   | <i>On elliptic deformation of quantum toroidal algebras</i>                   |

## **27 August**

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| 10.00-13.00 | Discussion |
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**13.00 Closing**