

Euler Symposium on Theoretical and Mathematical Physics
D.I. Diakonov memorial symposium
July 12-17, 2013, St. Petersburg, Russia

Preliminary schedule

Friday, July 12

8:30 – 9:30 Registration

9:30 – 9:40 Opening

9:40 – 10:30 Lev Lipatov. Effective action for the Regge processes and double logarithmic asymptotics in gravity.

10:30 – 11:00 Coffee break

11:00 – 11:50 Dmitry Ivanov. Localization of a Majorana fermion

11:50 – 12:40 Pavel Ostrovsky. Density of states in a 2D chiral model with sublattice imbalance.

12:40 – 14:30 Lunch

14:30 – 15:20 Alexander Altland. $SO(N)$ Kondo effect in Majorana quantum dots

15:20 – 16:10 Dmitri Aristov. Chiral Y-junction of Luttinger liquid wires at strong coupling: Fermionic representation

16:10 – 16:40 Coffee break

16:40 – 17:10 Vladimir Matveev. Multi-rogue waves solutions of the NLS equation and extreme rogue wave solutions of the KP-I equation

17:10 – 17:40 Chihiro Matsui. Superconformal field theory and supersymmetric sine-Gordon model with Dirichlet boundary conditions

17:40 – 18:10 Pavel Pobylitsa. Large orders of perturbation theory and epsilon-expansion: from factorial divergence to inverse-factorial convergence

18:15 Welcome party

Saturday, July 13

09:00 – 09:50 Yan Fyodorov. Fluctuations and extreme values in multifractal patterns.

09:50 – 10:40 Ilya Gruzberg. Classification and symmetry properties of scaling dimensions at Anderson transitions.

10:40 – 11:10 Coffee break

11:10 – 12:00 Valery Rubakov. Towards conformal cosmology.

12:00 – 12:50 Leon Takhtajan. Some remarks on Chern-Simons and Bott-Chern forms.

12:50 - 14:30 Lunch

14:30 – 15:20 Leon Balents. Entanglement entropy in topological phases and spin liquids.

15:20 - 16:10 Vasily Shaginyan. Quantum spin liquids.

16:10 - 16:40 Coffee break

16:40 – 17:30 Alexei Yung. Duality and instead-of-confinement phase in supersymmetric QCD.

17:30 – 18:00 Vasily Pestun. Exact results in supersymmetric theories in curved backgrounds.

Sunday, July 14

09:00 – 9:50 Vladimir Kazakov. $N=4$ SYM as integrable theory.

09:50 – 10:40 Nikolai Gromov. Exact results in AdS/CFT.

10:40 – 11:10 Coffee break

11:10 – 12:00 Xiao-Gang Wen. Topological order: From long-range entanglement to new states of quantum matter.

12:00 - 12:50 Martin Zirnbauer. On the symmetry classification of topological insulators and superconductors.

12:50 – 13:30 Victor Petrov. Dmitri Diakonov: Life in physics.

13:30 Lunch

Afternoon: Discussions / Free time

20:00 Boat trip and conference dinner on board

Monday, July 15

9:00 – 9:50 Pavel Wiegmann. Anomalous Hydrodynamics of Fractional Hall states.

09:50 – 10:40 Alexander Abanov. On the effective hydrodynamics of quantum Hall liquids.

10:40 – 11:10 Coffee break

11:10 – 12:00 Ivan Protopopov. Dynamics of waves in 1D electron systems: Density oscillations driven by population inversion

12:00 – 12:50 Nikolai Reshetikhin. Topological quantum field theory on space time manifolds with boundary.

12:50 – 14:30 Lunch

14:30 - 15:20 Claudio Chamon. Fractional topological insulators

15:20 – 16:10 Victor Gurarie. Topological invariants for the fractional quantum Hall states.

16:10 - 16:40 Coffee break

16:40 – 17:30 Mikhail Polikarpov. Graphene as quantum gauge theory on the lattice.

17:30 – 18:00 Alexey Vladimirov. Spinor gravity on a lattice.

18:00 – 18:30 Anatoli Kotikov. Pomeron in the $N=4$ supersymmetric gauge model at strong couplings.

Tuesday, July 16

- 09:00 – 09:50** Konstantin Zarembo. Supersymmetric localization and non-AdS / non-CFT correspondence.
- 09:50 - 10:40** Sean Hartnoll. Holographic entanglement beyond classical gravity.
- 10:40 – 11:10** **Coffee break**
- 11:10 – 12:00** Arkady Tseytlin. Towards solution of string theory in AdS spaces
- 12:00 - 12:50** Niklas Beisert. Deformed $SU(2|2)$ Quantum Affine Algebra
- 12:50 – 14:30** **Lunch**
- 14:30 - 15:20** Michael Semenov-Tian-Shansky. TBA
- 15:20 - 16:10** Igor Gornyi. Superconductivity and Anderson localization.
- 16:10 – 16.40** **Coffee break**
- 16:40 - 17:30** Igor Burmistrov. Multifractality at Anderson transitions with Coulomb interaction.
- 17:30 – 18:00** Alexander Ossipov. Anderson localization on a simplex.
- 18:00 – 18:30** Zohar Ringel. Weak topological insulators with strong disorder.

Wednesday, July 17

- 09:00 – 09:50** Paul Fendley. Parafermions and topological order
- 09:50 - 10:40** Kirill Shtengel. Looking beyond Majorana zero modes: Engineering non-abelian anyons.
- 10:40 – 11:10** **Coffee break**
- 11:10 – 12:00** Samson Shatashvili. Quantum Integrability and Supersymmetric vacua
- 12:00 - 12:50** Anton Alekseev. Diakonov-Petrov non-abelian Stokes formula and BV formalism
- 12:50 - 14:30** **Lunch**
- 14:30 - 15:20** Matthias Staudacher. A spectral parameter for $N=4$ scattering amplitudes.
- 15:20 - 16:10** Alexei Morozov. TBA
- 16:10 - 16:40** **Coffee break**
- 16:40 - 17:30** Shinsei Ryu. Symmetry protected topological phases and orbifolds
- 17:30 - 18:00** Piotr Surowka. Holographic liquid crystal
- 18:00 – 18:10** **Closing**
- 18:15** **Farewell party**