

Program of the international conference “Modern Trends in Condensed Matter Physics” (Lev Gor'kov Memorial Conference) <http://gorkovconf.itp.ac.ru/gorkov2019/>

Monday, June 24

8:00 - 8:45 Registration
8:45 - 9:00 I. Kolokolov, Opening
9:00 - 9:30 T. Klapwijk, Gor'kov-theory used for superconducting devices in astronomical instruments
9:30 - 10:00 V. Mineev, Normal and superfluid He-3 in anisotropic aerogel: Phase diagram and Spin current
10:00 - 10:30 A. Kapitulnik, Time reversal symmetry breaking in unconventional superconductors
10:30 - 11:00 Coffee break
11:00 - 11:30 A. Levchenko, Anomalous and mesoscopic Nernst effects in disordered superconductors
11:30 - 12:00 V. Dobrosavlevich, Landau theory of disorder-driven metal-insulator transitions
12:00 - 12:30 J. Schmalian, Vestigial order due to superconducting fluctuations in doped topological insulators
12:30 - 14:30 Lunch break
14:30 - 15:00 A. Hebbard, Van der Waals interfaces of high-Tc crystalline Bi-2212 with semiconductor n-GaAs for teasing out superconductor electric field screening lengths
15:00 - 15:30 G. Falkovich, Modern hydrodynamics
15:30 - 16:00 Coffee break
16:00 - 17:30 - Memorial session, Chairman G.M. Eliashberg
17:30 - 19:30 Welcome party

Tuesday, June 25

9:00 - 9:30 H. von Loehneysen, Multiband superconductivity and quantum criticality in the heavily hole-doped iron arsenides AFe_2As_2 ($A = K, Rb, Cs$)
9:30 - 10:00 A. Chubukov, Interplay between non-Fermi liquid and superconductivity near a quantum critical point in a metal
10:00 - 10:30 G. Volovik, Dirac and Weyl fermions: from Gor'kov equations to Standard model of particle physics
10:30 - 11:00 Coffee break
11:00 - 11:30 K. Efetov, Thermodynamic quantum time crystal
11:30 - 12:00 G. Refael, Adventures in synthetic dimensions: new schemes for quantum control
12:00 - 12:30 A. Andreev, Debye mechanism of microwave absorption in superconductors
12:30 - 14:30 Lunch break
14:30 - 15:00 M. Gershenson, Superinductors and superinductor-based Qubits
15:00 - 15:30 M. Houzet, Microwave spectroscopy of a weakly-pinned charge density wave in a superinductor
15:30 - 16:00 B. Sacepe, Helical quantum Hall phase in graphene on $SrTiO_3$
16:00 - 16:30 Coffee break
16:30 - 17:00 A. Lebedev, Some many-body phenomena due to quantum and quasiclassical effects of electron motion along open trajectories in a magnetic field
17:00 - 17:30 L. Glazman, Landau quantization of nearly-degenerate bands
17:30 - 18:00 I. Burmistrov, Dissipative and Hall viscosity of 2D disordered electron gas

18:00 - 19:30 **Poster session**

Wednesday, June 26

9:00 - 9:30 G. Boebinger, Evidence for quantum critical behavior in high temperature superconductors
9:30 - 10:00 G. Teitelbaum, The puzzles of the pseudogap state of high-T_c superconductors
10:00 - 10:30 P. Grigoriev, On the origin of magnetic quantum oscillations in YBCO high-T_c superconductors
10:30 - 11:00 Coffee break
11:00 - 11:30 A. Kitaev, Chaos and out-of-time-order correlators in large-N systems
11:30 - 12:00 Yu. Makhlin, Majorana degrees of freedom with Josephson qubits
12:00 - 12:30 Yu. Oreg, Spin liquids from Majorana Zero Modes in a network of Cooper Boxes
12:30 - 14:30 Lunch break
14:30 - 15:00 B. Altshuler, Between localization and ergodicity in many-body quantum systems
15:00 - 15:30 V. Kravtsov, Electron-phonon cooling in Anderson insulators
15:30 - 16:00 L. Ioffe, Old problem of dense Bose liquid: a possibility of quantum simulation
16:00 - 16:30 Coffee break
16:30 - 17:00 V. Pokrovskii, Non-topological domain walls and other singularities in helical magnets
17:00 - 17:30 A. Shnirman, Noise of charge current generated by a driven magnet
17:30 - 18:00 P. Ostrovsky, Interplay between Anderson localization and proximity effect
18:00 - 20:00 Conference dinner

Thursday, June 27

9:00 - 9:30 K. Behnia, Superconductivity of strontium titanate
9:30 - 10:00 A. Finkel'stein, Odd-frequency pairing in disordered conductors
10:00 - 10:30 V. Galitskii, Cavity quantum Eliashberg enhancement of superconductivity
10:30 - 11:00 Coffee break
11:00 - 11:30 A. Chaplik, Bound states of electrons in a 2d structure due to the spin-orbit interaction
11:30 - 12:00 A. Rogachev, Pair-breaking quantum phase transition in superconducting nanowires
12:00 - 12:30 C. Varma, Quantum-criticality of the dissipative quantum XY model with application to loop-current and antiferromagnetic order
12:30 - 14:30 Lunch break
14:30 - 15:00 K. Tikhonov, Quantum metal-superconductor phase transition in 2D disordered materials
15:00 - 15:30 M. Dzero, Thermodynamic properties of disordered unconventional superconductors with competing interactions
15:30 - 16:00 Coffee break
16:00 - 16:30 M. Skvortsov, Inverted pendulum driven by a random force: statistics of the non-falling trajectory and supersymmetry
16:30 - 17:00 A. Ioselevich, Non-Born scattering in quasi-1D-systems
17:00 - 17:10 Closing

Poster session:

- P1. Yunxiang Liao, "Two-fluid hydrodynamics and viscosity suppression in fluctuating superconductors"
- P2. Andrey Katanin, "Critical behavior of correlated fermionic systems beyond Hertz-Moriya-Millis theory"
- P3. Zaur Z. Alisultanov, "New Transport Mechanism in Weyl Metals with Tilted Dispersion".
- P4. Sergei Aksenov, "Interference effects in a device containing topologically superconducting wire".
- P5. M.S. Shustin, "Strong electron-electron interactions and Majorana-like states in superconducting nanowires"
- P6. R.A. Niyazov, "Tunneling into a Luttinger-liquid coupled to acoustic phonons out of equilibrium"

P7. P. A. Nosov, "Correlation-induced localization"

P8. Lev Shtarkman, "Effective field theory of the Y-junction of Luttinger liquid quantum wires"

P9. V.E.Timofeev, "Comparative study of skyrmion crystal and triple helix states in non-centrosymmetric magnets".

P10. D. K. Efimkin, "Tunneling and Fluctuating Electron-Hole Cooper Pairs in Double Bilayer Graphene".

P11. Taras I. Mogilyuk, "Interaction of angular and quantum magnetoresistance oscillations in quasi-2D metals. The effect of real part of electron self-energy."

P12. Kaushal K. Kesharpu, "Excess conductivity of inhomogeneous anisotropic superconductors above T_c ".

P13. Pavel Vorobyev, "Competition of band anticrossing and charge-density wave".

P14. Vladimir Zyuzin, "Superconductivity in disordered two-dimensional electron liquid"

P15. Igor Poboiko, "Paraconductivity in pseudogapped superconductors"

P16. Alexey Lunkin, "SYK model with quadratic perturbations: the route to a non-Fermi-liquid".

P17. Nikolay Stepanov, "Kapitza pendulum under random horizontal driving".

P18. Daniil Antonenko, "Mesoscopic conductance fluctuations in class D superconducting wires".

P19. Alina Khisameeva, "Achieving balance of valley occupancy in narrow AIs quantum wells"

P20. Artur Orlov, "Quasi-two-dimensional turbulence and coherent structures"

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**Some useful
information
and local map**

Local Chernogolovka Taxi: +74965248800
In case of assistance needed, please, call:
007 926 4140139 (Pavel Grigoriev)

