



International Workshop: Localization, Interactions and Superconductivity

Chernogolovka, Russia, June 30 - July 4, 2018

<http://intgroup.itp.ac.ru/conf2018.html>

Saturday, June 30

- 9:00 - 9:20 Registration
- 9:20 - 9:30 Opening
- 9:30 - 10:10 *Kirill Bolotin* — Bending, pulling, and cutting wrinkled two-dimensional materials
- 10:10 - 10:50 *Scott Bunch* — Blister testing atomic membranes
- 10:50 - 11:20 Coffee break
- 11:20 - 12:00 *Valentin Kachorovskii* — Anomalous elasticity of graphene: crumpling transition and anomalous Hooke's law
- 12:00 - 12:40 *Igor Burmistrov* — Anomalous elasticity of graphene: quantum thermal expansion and Poisson's ratios
- 13:00 - 15:00 Lunch break
- 15:00 - 15:40 *Andrej Kosmrlj* — Statistical mechanics of microscopically thin thermalized structures
- 15:40 - 16:20 *Leo Radzihovsky* — Fracton-elasticity duality
- 16:20 - 16:50 Coffee break
- 16:50 - 17:30 *Alexander Finkel'stein* — Flexural phonons in supported graphene: from pinning to localization
- 17:30 - 19:30 Welcome Party

Sunday, July 1

- 9:30 - 10:10 *Binghai Yan* — Nonlinear optical and electrical phenomena in topological semimetals
- 10:10 - 10:50 *Haim Beidenkopf* — Imaging interaction effects in semiconducting nanowires and their superconducting hybrids
- 10:50 - 11:20 Coffee break
- 11:20 - 12:00 *Andreas Schnyder* — Topological band crossings in hexagonal materials: Accordion states and star-shape Dirac lines
- 12:00 - 12:40 *Anton Andreev* — Longitudinal negative magnetoresistance in conventional and topological conductors
- 13:00 - 15:00 Lunch break
- 15:00 - 15:40 *Arbel Haim* — Toward realizing a time-reversal-invariant topological superconductor
- 15:40 - 16:20 *Sam Carr* — Emergent topological properties in one-dimensional metals
- 16:20 - 16:50 Coffee break
- 16:50 - 19:00 Poster Session

Monday, July 2

- 9:30 - 10:10 *Britton Plourde* — Vortex microwave response in high kinetic inductance superconducting thin films
- 10:10 - 10:50 *Benjamin Sacepe* — Quantum meets classical phase transition: Low-temperature anomaly in disordered superconductors near Bc2
- 10:50 - 11:20 Coffee break
- 11:20 - 12:00 *Mikhail Skvortsov* — Superconductivity in the presence of microwaves: Full phase diagram
- 12:00 - 12:40 *Pratap Raychaudhuri* — Melting of the vortex lattice through intermediate hexatic fluid in a-MoGe thin film
- 13:00 - 15:00 Lunch break
- 15:00 - 15:40 *Pavel Ostrovsky* — Interplay of Anderson localization and proximity effect
- 15:40 - 16:20 *Alexander Shnirman* — Majorana box: crossover between uncorrelated Andreev reflection and teleportation
- 16:20 - 16:50 Coffee break
- 16:50 - 17:30 *Roman Kuzmin* — Quantum electrodynamics of a superconductor-insulator phase transition
- 18:00 - 21:00 Conference Dinner

Tuesday, July 3

- 9:30 - 10:10 *Rosario Fazio* — Finite frequency criticality of driven-dissipative correlated lattice bosons
- 10:10 - 10:50 *Mikhail Feigel'man* — Sachdev-Ye-Kitaev model with quadratic perturbations: the route to a non-Fermi-liquid
- 10:50 - 11:20 Coffee break
- 11:20 - 12:00 *Vladimir Kravtsov* — Survival probability in the Rosenzweig-Porter random matrix ensemble
- 12:00 - 12:40 *Lev Ioffe* — Non-ergodic phase of purely quantum random energy model
- 13:00 - 15:00 Lunch break
- 15:00 - 15:40 *Jens Bardarson* — Transport on the ergodic side of the many-body localisation transition in the absence of conserved quantities
- 15:40 - 16:20 *Konstantin Tikhonov* — Statistics of eigenstates near the localization transition on a random regular graph
- 16:20 - 16:50 Coffee break
- 16:50 - 17:30 *Yevgeny Bar Lev* — Emergent locality in long-range interacting systems
- 17:30 - 18:10 *Ivan Protopopov* — Thermalisation in hot disordered Heisenberg spin chains

Wednesday, July 4

- 9:30 - 10:10 *Marco Polini* — Viscous electron transport
10:10 - 10:50 *Moshe Ben Shalom* — Supercurrent, heat, and hydrodynamic transport in graphene
10:50 - 11:20 Coffee break
11:20 - 12:00 *Igor Gornyi* — Fermionic approach to the kinetics of $\nu=2/3$ quantum Hall edges
12:00 - 12:40 *Leonid Rokhinson* — Development of quantum Hall - based platforms to realize high order non-Abelian excitations
12:40 - 12:50 Closing

Poster session:

- P1 *Sergey Aksenov* — Transport properties of Aharonov-Bohm ring with superconducting bridge
P2 *Daniil Antonenko* — Density of states in 3D interacting metals: ballistic effects
P3 *Mathias Bard* — Superconductor-insulator transition in disordered Josephson junction chains
P4 *Mathias Bard* — Long lifetimes of ultra-hot particles in interacting Fermi systems
P5 *Zhanna Devizorova* — Fermi arcs formation in Weyl semimetals: the key role of intervalley interaction
P6 *Zhanna Devizorova* — Nonuniform magnetic states in ferromagnetic superconductors with low Curie temperature
P7 *Fernando Iemini* — Boundary time crystals
P8 *Kaushal Kesharpur* — Conductivity of anisotropic superconductors above the critical temperature
P9 *Janina Klier* — Transversal magnetoresistance in Weyl semimetals
P10 *Vladislav Kurilovich* — Helical edge transport in the presence of a magnetic impurity: The role of local anisotropy
P11 *Pavel Kurilovich* — Current noise on the helical edge
P12 *Taras Mogilyuk* — Anisotropic effect of appearing superconductivity on the electron transport in FeSe
P13 *Ramil Niyazov* — Aharonov-Bohm interferometer on helical edge states: Coherent enhancement of scattering off magnetic impurity
P14 *Igor Poboiko* — Paraconductivity of pseudogapped superconductors
P15 *Stefan Rex* — Majorana bound states from interfacial Dzyaloshinskii-Moriya interaction
P16 *Indranil Roy* — Melting of 2D vortex lattice through intermediate hexatic liquid phase in a-MoGe thin film
P17 *David Saykin* — Landau levels and magnetic tunneling in Weyl semimetals and magnetoconductance of ballistic junctions
P18 *Maxim Shustin* — Magneto- and electrocaloric effects in superconducting nanowire with Majorana zero modes and electron correlations
P19 *Nikolai Stepanov* — Fluctuation superconductivity: from the dirty to the clean case strength
P20 *Alexander Svetogorov* — Effect of disorder on coherent quantum phase slips in Josephson junction chains

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