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Monday, October 5, 2015

Arrival, registration and accommodation 12:00-15:00

Lunch 14:00-15:00

15:30	16:25	MO 1	Plenary session
15:30	15:40	Program Committee	Conference opening
15:40	16:25	Jinfeng Jia	Superconductivity in Single-Layer Films of FeSe on SrTiO ₃ with a Transition Temperature above 100 K
16:30	17:00	<i>Coffee-break</i>	
17:00	19:15	MO 2	Plenary session
17:00	17:45	M. Eremets	Conventional superconductivity at 195 K at high pressures
17:45	18:30	A. Bianconi	Shape resonance between BEC-BCS and BCS condensates near a neck disrupting Lifshitz transition in a complex mesoscale geometry
18:30	19:15	C. Giannetti	Snapshots of the retarded interaction of charge carriers with ultrafast fluctuations in cuprates
19:30	23:00	<i>Welcome party</i>	

Tuesday, October 6, 2015*Breakfast 8:00-9:00*

9:00	11:30	TU 1	Section M
9:00	9:45	B. Keimer	Mechanisms of high- T_c superconductivity in cuprates
9:45	10:30	K. Efetov	Spin-fermion model close to a van Hove singularity and charge modulation in cuprates
10:30	11:15	S.G. Ovchinnikov	Polaron approach to the systems with strong electron-phonon interactions within framework of the generalized strong coupling method
11:15	11:30	I. Makarov	“Large polaron-small polaron” crossover in HTC-cuprates
11:30	12:00	<i>Coffee-break</i>	
12:00	14:00	TU 2	Sections M, P
12:00	12:45	N. Plakida	Kinematical spin-fluctuation mechanism of high-temperature superconductivity
12:45	13:00	V. Valkov	Spin and Charge fluctuations in the problem of high- T_c superconductivity
13:00	13:15	A. Moskvina	Local intra-unit-cell order parameters in cuprates beyond Zhang-Rice model
13:15	13:30	L. Mazov	Combined exciton-phonon mechanism of RTSC in perovskites
13:30	13:45	L. Klinkova	Origin of the nanostructural HTS inhomogeneity
13:45	14:00	V. Gasparov	Magnetic field, frequency and temperature dependence of complex conductance of ultrathin $\text{La}_{1.65}\text{Sr}_{0.45}\text{CuO}_4/\text{La}_2\text{CuO}_4$ heterostructures
14:00	15:00	<i>Lunch</i>	
15:00	16:15	TU 3	Section N
15:00	15:45	A. Rakhmanov	Majorana fermion in superconducting island on top of topological insulator
15:45	16:15	A. Boris	Excitonic insulator phase and Fano interference in ternary chalcogenides Ta_2NiSe_5 and Ta_2NiS_5
16:15	16:30	I. A. Devyatov	Theory of coherent charge transport in structures with multiband high-temperature superconductors and topological insulators
16:30	17:00	<i>Coffee-break</i>	
17:00	18:15	TU 4	Sections N, M
17:00	18:15	G. Volovik	Flat band and room-T superconductivity
18:15	21:00	Poster session 1 (Sections M, N, A)	
19:00	20:00	<i>Supper</i>	

Wednesday, October 7, 2015*Breakfast 8:00-9:00*

9:00	11:30	WE 1	Sections P, N
9:00	9:15	I. Nekrasov	Electronic structure of NaFeAs superconductor: LDA+DMFT calculations compared with ARPES experiment
9:15	9:30	E. Shneyder	Analysis of the angle-resolved photoemission line shape for strongly correlated electron systems
9:30	9:45	S. Kuzmichev	Anisotropy and Temperature Behavior of the Order Parameters of Superconducting LiFeAs by Means of Multiple Andreev Reflections Spectroscopy
9:45	10:00	T. Kuzmicheva	Andreev spectroscopy of superconducting Fe-based oxypnictides
10:00	10:15	M. Korshunov	Unexpected impact of magnetic disorder on multiband superconductivity
10:15	10:30	S. Pryanichnikov	Crystal and electronic structure of HTSC compounds YBCO in the temperature interval 170 – 270 K
10:30	10:45	A. Shevchun	Микроволновый отклик кристаллов $\text{Bi}_2\text{Sr}_{2-x}\text{La}_x\text{CuO}_y$
10:45	11:00	I. Sannikov	Температурная зависимость критического тока пленок $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$
11:00	11:15	K. Yugay	A minimal size superconductor
11:15	11:30	V. Stepanov	Current-phase relation in Josephson point contacts in $\text{PbIn}/\text{Ba}_{1-x}\text{K}_x\text{Fe}_2\text{As}_2$
11:30	12:00	<i>Coffee-break</i>	
12:00	13:45	WE 2	Sections M, P, N
12:00	12:45	E. Kuchinskii	Attractive Hubbard within the generalized DMFT: normal state properties, disorder effects and superconductivity.
12:45	13:15	M. Abdel-Hafiez	Superconducting Gap and Coexistence of Superconductivity and Spin/Charge Density Waves in Unconventional Materials
13:15	13:30	Yu. Panov	Competition of spin and charge orders in a model cuprate
13:30	13:45	D. Sunyaev	Temperature dependence of the supercurrent critical density in the coexisting superconductive and CDW phases
14:00	15:00	<i>Lunch</i>	

15:00	16:30	WE 3	Sections M, P
15:00	15:45	M. Kagan	High-T-c and low T-c superconductivity in electron systems with repulsion
15:45	16:00	L. Mamsurova	Pseudo-gap anomalies enhancement under the nanoscale structural disordering in optimally doped microcrystalline HTS $\text{YBa}_2\text{Cu}_3\text{O}_{6.93}$
16:00	16:15	S. Kazakov	Chemical and electrochemical modification of superconducting FeSe
16:15	16:30	I. Rudnev	Magnetic characteristics of the superconducting $\text{Y}_{1-x}\text{Ca}_x\text{Ba}_2\text{Cu}_3\text{O}_7$ films
16:30	17:00	<i>Coffee-break</i>	
17:00	18:00	WE 4	Sections P, N
17:00	17:15	S. Mironov	Triplet spin-valve effect in layered superconductor/ferromagnet/half-metal systems
17:15	17:30	V. Kushnir	Critical currents in superconducting thin film electromagnetically coupled with ferromagnet
17:30	17:45	A. Samokhvalov	Thermodynamic properties of the SFS hybrid structures in the vicinity of the $0 - \pi$ transition
17:45	18:00	P. Grigoriev	Jump in the conductivity anisotropy at the CDW/SDW transition and the order parameter structure
18:00	21:00	Poster session 2 (Section P)	
19:00	20:00	<i>Supper</i>	

Thursday, October 8, 2015*Breakfast 8:00-9:00*

9:00	11:30	TH 1	Section P
9:00	9:45	A. Melnikov	Induced superconductivity, quantum transport and Josephson effects in low-dimensional hybrid systems
9:45	10:00	D. Vodolazov	Vortex assisted mechanism of photon counting in the superconducting nanowire single photon detector revealed by external magnetic field
10:00	10:15	W. Pogosov	Dynamical Lamb effect in a coupled system of a superconducting qubit and microwave resonator
10:15	10:30	K. Frolov	Mössbauer study of superconducting compounds of the FeSeTe family
10:30	11:00	<i>Coffee-break</i>	
11:00	12:10	TH 2	Section P
11:00	11:45	M. Feigel'man	Strongly disordered superconductors and superconductor-metal-insulator transitions
11:45	12:10	I. Burmistrov	Superconductor-insulator transitions: Phase diagram and magnetoresistance
12:15	13:15	<i>Early Lunch</i>	
13:20	18:20	<i>Excursion</i>	
18:30	20:30	TH 3	<i>"Round table" discussion</i>
20:30	23:30	<i>Conference banquet</i>	

Friday, October 9, 2015

Breakfast 8:00-9:00

9:00	10:45	FR-1	Section A
9:00	9:45	S. Samoilenkov	Novel aspects in technology and applications of the High- T_c 2G tapes
9:45	10:30	V. Vysotsky	Large scale HTS applications (an overview)
10:30	11:00	K. Kovalev	Full superconducting electrical machines based on 2G HTS for future aircraft
		K. Kovalev	1kWt power alternator for wind-power generators based on 2G HTSC tapes.
11:00	11:10	A. Klushin	Quantum voltage standard based on Josephson contacts in cuprate superconductors
11:10	11:25	Closing	
11:00	11:10	Program Committee	Concluding remarks (experiment)
11:10	11:20	Program Committee	Concluding remarks (theory)
11:20	11:25	Program Committee	Conference closing
11:30	12:00	<i>Coffee-break</i>	
12:30		<i>Departure</i>	

Poster Session 1 (Tuesday, October 6, 2015)

17:30 — 21:00

Topic: Mechanisms (M)		
Poster	Authors	Title
M1	Zhilyaev I.	Superconducting state with two types of electron-electron interactions
M2	Tskhovrebov A.M.	Features of the superconductivity in systems with a nonlinear bozonic field, responsible for electron-electron interaction
M3	Alisultanov Z.Z.	Enhancement of electron-phonon interaction in a system with a nonparabolic Hamiltonian
M4	Netesova N. P.	Pseudogap state in high-temperature superconductors
M5	Bondarev B.V.	Density matrix method. Novel theory of superconductivity
M6	Moskvin A.S.	Unusual domain structures, filamentary superfluidity, and topological structures for 2D hard-core bosons
M7	Kuzmin V.I.	Comparison of the electronic structure of the Hubbard and t-J models within the cluster perturbation theory
M8	Nikolaev S.V.	Spectral properties of strongly correlated systems within the cluster perturbation theory in the X-operators representation
M9	Konev V.V.	Unusual finite-temperature phase diagram for 2D semi-hard-core bosons
M10	Krasinkova M.	High-temperature superconductivity, 2D Wigner crystals of bosons and quasi-2D macroscopic quantum system
M11	Chikov A.A.	Competition of spin and charge orders in a model cuprate
M12	Mikheyenkov A.V.	Development of a theory for two-dimensional frustrated magnet in the projection formalism for the spherically symmetric approach
Topic: Novel materials (N)		
N1	Volkov M.P.	Superconducting properties and structure of Fe(Se,Te) with excessive Fe content
N2	Gerashchenko O.V.	Critical state and the low-field electrodynamic in the polycrystalline superconductors $\text{LaO}_{0.85}\text{F}_{0.15}\text{FeAs}$
N3	Golubkov M.V.	Long term evolution of structural and superconducting states of FeSe crystallites with time
N4	Sidorov V.A.	Superconducting properties of $\text{GdFeAsO}_{0.85}$ at high pressure.

N5	Ionov A.N.	Superconducting properties of the graphene-like plates imbedded into polystyrene
N6	Ponosov Yu.S.	Low frequency phonons and electron-phonon interaction in the YB_6 and LaB_6 hexaborides
N7	Karakozov A.E.	Study of the structure of a superconducting state of Co-doped $BaFe_2As_2$ multiband compounds
N8	Tsendin K.D.	On the temperature increase of superconducting transition in the chalcogenide based HTSC
N9	Merentsov A.I.	Influence of the sulfur substitution for tellurium on the superconducting properties of $Fe_{1.02}Se_{1-y}Te_{y-x}S_x$ ($y = 0.4, 0.5, 0.6, x = 0 - y$)
N10	Vlasenko V.A.	Features of the physical properties of Fe-based superconductors: $FeSe$ and $FeSe_{1-x}S_x$ of the 11-family.
N11	Knyazev D.A.	Quantum oscillations in high magnetic fields, Berry phase and superconductivity in 3D topological insulators
N12	Aleshchenko Yu.A.	Infrared spectroscopy of Eu-doped Bi_2Se_3
N13	Zyuzeva N.A.	Raman spectra of water intercalated $YBa_2Cu_3O_y$
Topic: Applications (A)		
A1	Malginov V.A.	Electrical conductivity of various layers in the structure of the 2G HTSC materials
A2	Malginov V.A.	Inductive AC-voltage in the linear 2G HTSC tapes
A3	Malginov V.A.	Measurements of the resistance of the buffer layer of the 2G HTSC materials
A4	Dezhin D.S.	Synchronous electrical motors based on 2G HTSC tapes
A5	Fleishman L.S.	HTSC transformers with the current limiting capability
A6	Ichkitidze L.P.	A combined sensor of the ultralow magnetic field
A7	Varlashkin A.V.	Method for fabrication of a universal subcoating layer for HTSC tapes of the high current capacity
A8	Mikhailov B.P.	Studies of the mechanical strokes effect on the critical parameters of the $Bi_2Sr_2Ca_2Cu_3O_{10+x}$ HTSC tapes
A9	Poltavets V.N.	Kinetic accumulator with 5MJ stored energy and the HTSC suspension
A10	Kopylov S.I.	Mathematic modeling of the heat processes in complex structure HTSC cables
A11	Troitskii A.V.	Low-resistance junction of the 2G HTSC tapes based on $GdBa_2Cu_3O_{7-\delta}$. Behavior in magnetic field and mechanical properties
A12	Akhmetgareev M.R.	Superconducting 8MVA DC current limiter

A13	Pestov E.E.	Studies of microwave properties of the arrays of Josephson contacts in HTSC materials using a closed-cycle cryocooler
A14	Degtyarenko P.N.	Studies of the low-resistance joints of the HTSC tapes under the bending deformation
A15	Osipov M.A.	Magneto-optical studies of the features in magnetic field distribution in the HTSC composite tapes
A16	Pokrovskii S.	Magnetic properties of the multilayer stacks of HTSC tapes
A17	Ivanov Yu.V.	A project of the HTSC DC power transmission line at Ishikari (Japan)
A18	Gavrilkin S.Yu.	Nonlinear inductive technique for studying the critical parameters of the superconducting wires and tapes
A19	Murlieva Zh.H.	Conduction features of the nanostructural cuprate HTSC
A20	Tskhovrebov A.M.	DC SQUID with a magnetic circuit for “easy matching” of the macroscopic source of the measured field with quantum interferometer

Poster Session 2 (Wednesday, October 7, 18:00 — 21:00)

Poster	Authors	Title
P1	Petukhov D.S.	The existence of electron and hole subsystems in nominally electron doped superconductor $\text{Nd}_{2-x}\text{Ce}_x\text{CuO}_{4+\delta}$
P2	Karuzskii A.L.	Probe of permittivity-operator eigenvalues as an aspect of the spatial-time microwave spectroscopy of superconductors and conductors
P3	Zyuzeva N.A.	Methods of the $\text{YBa}_2\text{Cu}_3\text{O}_{6.9}$ critical parameters increasing
P4	Zherikhina L.N.	Impedance of the Josephson tunnel junction between the kinetic inductance and Josephson capacitance
P5	Eremin M.V.	Dual features of spin and charge excitations in high- T_c cuprates
P6	Malishevskii A.S.	Linewidth of the THz Cerenkov radiation train of the Josephson vortices
P7	Savinov D.A.	Scattering-matrix approach to the theory of Josephson transport in mesoscopic multiterminal nodes
P8	Nikulov A.V.	Can the theory of superconductivity describe the Meissner effect?

P9	Nikulov A.V.	Can the theory describe quantum periodicity, observed in measurements with superconducting rings?
P10	Slavkin V.V.	Studies of the frequency-field dynamics of the vortex lattice in textured $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ samples using the complex permittivity
P11	Ponomarev Y.G.	Multigap superconductivity in doped p-type cuprates
P12	Sidorov K.A.	Studies of the pressure effect on the cuprate properties
P13	Yuryeva E.I.	The relaxational model of superconducting temperature forming and its possible application
P14	Kuzmichev N.D.	Magnetization harmonics of thin superconducting disc within the critical state model with $J_c \sim 1/H_2$.
P15	Larionov I.A.	Resistance, Hall coefficient, and thermo-EMF of optimally doped high temperature superconductors
P16	Vasyutin M.A.	Temperature dependence of the second critical field in thin films of niobium nitride
P17	Uspenskaya L.S.	Pair breaking effects in HTSC/FM films
P18	Uspenskaya L.S.	Resistance switching in the YBCO/LSMO structures by the spin-polarized current
P19	Ivanenko O.M.	Influence of irradiation on the superconducting and normal properties of $\text{Ba}(\text{Fe}_{1-x}\text{Co}_x\text{As})_2$
P20	Sadakov A.V.	C-axis anisotropy of upper critical field in FeSe single crystals
P21	Malakhov M.A.	On the dispersion anisotropy of magnetic excitations in the hole-doped cuprates
P22	Kuznetsov V.I.	Gap features on the current-voltage characteristic of the long quasi one-dimensional superconducting aluminum wire
P23	Gavrichkov V.A.	A simple metal-insulator criterion for the doped Mott-Hubbard materials
P24	Krasnoperov E.P.	Features of pulsed magnetization of the HTS rings
P25	Bazarov V.V.	Observation of the pinning enhancement in the composite based on magnesium diboride, carbon nanotubes, and superconducting metallic particles by modulated microwave dissipation technique
P26	Pogosov W.V.	Particle-hole symmetry in Richardson pairing model: theory and applications
P27	Burmistrova A.V.	Theoretical studies of the proximity effect in the contacts of the topological insulator and superconductor
P28	Kuznetsov A.V.	Activation energy for vortex motion in the YBCO films
P29	Trusevich N.G.	Nanoscale structural disorder and pseudogap features in optimally doped fine-crystalline $\text{YBa}_2\text{Cu}_3\text{O}_{6.93}$ HTS

P30	Grigoriev P.D.	Slow magnetoresistance oscillations as a probe to determine band structure parameters of the quasi one-dimensional conductors
P31	Bezotosnyi P.I.	Numerical calculations of the superconducting state of thin plates within the Ginzburg-Landau theory, as an element of analytical base of techniques for determination of the superconducting structure parameters
P32	Gokhfeld D.M.	Magnetoresistance scaling for anisotropic and isotropic superconductors
P33	Pigalskiy K.S.	Low frequency magnetodynamics of the vortex system in the vicinity of the surface of $R\text{Ba}_2\text{Cu}_3\text{O}_y$ ($R = \text{Y}, \text{Tm}$) single crystals. Magnetic ion effect
P34	Shaposhnikova T.S.	Observation of the magnetic fluctuations above the critical temperature in the BSCCO single crystals by the microwave absorption measurements
P35	Blatov A.A.	Methods of string theory for possible description of strongly correlated electron systems
P36	Kushnir V.N.	Critical superconducting state and the spin-valve effect in the multilayer Nb/Ho structures
P37	Ryzhov D.A.	Upper critical field and the localized superconductivity in the superconductor-ferromagnetic systems with a domain structure at low temperatures
P38	Kislinskii Yu.V.	Electron transport in the HTSC- barrier layer - LTSC heterostructures
P39	Blinova Yu.V.	Effect of the Ca partial substitution for Y on the structure and properties of the $\text{Y}_{0,9}\text{Ca}_{0,1}\text{Ba}_2\text{Cu}_3\text{O}_{6,8}$ superconductor
P40	Ichkitidze L.P.	Material equation for the granular superconductor
P41	Arifullin M.R.	Spin state and spin correlations in the electron ensemble
P42	Khudayberdiev Z.	Possible mechanisms of carrier localization, metal-insulator transitions and stripe formation in inhomogeneous hole-doped cuprates
P43	Korotkov N.	Mössbauer study of $\text{BaFe}_{1,9}\text{Ni}_{0,1}\text{As}_2$ superconductors
P44	Korneeva Yu.	Hot-spot formation after single photon absorption in high diffusivity NbC films
P45	Sidorova M.	Study of WSi as a perspective material for developing SSPDs with infrared sensitivity