

PROGRAMME COMMITTEE

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Yanson Igor Kondratievich, academician NAS of Ukraine, ILTPE NASU (Kharkov, Ukraine)

LOCAL ORGANIZING COMMITTEE

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Organizing Committee members:

Afanasiev Oleksandr
Barabaschko Maksim
Buravtseva Lyubov
Chagovets Vitaliy
Danylchenko Oleksandr
Kiyko Andrey
Khrabustovsky Andrey
Khrustalyov Volodymyr
Koverya Valentin
Poperezhai Sergii
Pyshkyn Pavel

MONDAY, 6 JUNE		
8.00-10.00	REGISTRATION	
10.00-10.15	OPENING OF THE CONFERENCE Director of the B.Verkin ILTPE NAS of Ukraine Gnatchenko Sergey L.	Page
OPENING PLENARY SESSION		
10.15-11.15	Rogacki Krzysztof , Prof., Dr. Hab., Invited lecturer CRITICAL CURRENTS OF SUPERCONDUCTORS IN HIGH MAGNETIC FIELDS: HOPES FOR LARGE SCALE APPLICATIONS <i>Institute of Low Temperature and Structure Research, Polish Academy of Sciences, Poland</i>	
Section	LOW TEMPERATURE MAGNETISM, SPINTRONICS	
Chair	OLEKSANDR AFANASIEV , <i>ILTPE NASU, Ukraine</i>	
11.15-11.45	Lemmens Peter , Prof., Dr., Invited lecturer RAMAN SCATTERING IN SPIN LIQUIDS AND OTHER EXOTIC STATES OF CORRELATED ELECTRON SYSTEMS <i>Inst. for Condensed Matter Physics, Germany</i>	
11.45-12.15	Pashkevich Yury , Prof., Dr., Invited lecturer INTERPLAY OF RARE EARTH AND IRON MAGNETISM IN RFeAsO (R = Ce, Pr, Sm, Nd and Gd): MUON-SPIN RELAXATION STUDY <i>DIPE NASU, Ukraine</i>	
12.15-12.30	COFFEE BREAK	
12.30-12.45	Chirkova Alisa MAGNETIC PHASE TRANSFORMATIONS INDUCED BY PRESSURE AND SUBSTITUTIONS IN FeRh BASED ALLOYS <i>A.M. Chirkova, A.S. Volegov, D.S. Neznakhin, N.V. Baranov</i> <i>Ural State University, Russia</i>	
12.45-13.00	Savina Yuliya MAGNETIC PROPERTIES OF THE CHAIN SYSTEM β -TeVO ₄ <i>Yu. Savina, O. Bludov, V. Pashchenko, S. Gnatchenko, P. Lemmens, H. Berger,</i> <i>ILTPE NASU, Ukraine</i>	
13.00-13.15	Kondovych Svitlana ELECTRIC VOLTAGE CONTROL OF SHAPE-INDUCED ANISOTROPY IN THE SYNTHETIC MULTIFERROIC WITH ANTIFERROMAGNETIC LAYER <i>S. Kondovych, H. Gomonay</i> <i>National Technical University of Ukraine "Kyiv Polytechnic Institute", Ukraine</i>	
13.15-13.30	Marchenko Alexej MAGNETIC RECTANGULAR ANTIDOT ARRAYS: DOMAIN STRUCTURE AND SPATIALLY LOCALIZED RESONANCE <i>A.I. Marchenko, V.N. Krivoruchko</i> <i>DIPE NASU, Ukraine</i>	
13.30-14.30	LUNCH	
Section	LOW TEMPERATURE MAGNETISM, SPINTRONICS (continue)	
Chair	VOLODYMYR KHRUSTALYOV , <i>ILTPE NASU, Ukraine</i>	
14.30-15.00	Vasiliev Alexander N. , Prof., Dr., Invited lecturer ORTHOGONAL SPIN ARRANGEMENT AS POSSIBLE GROUND STATE OF A THREE – DIMENSIONAL SHASTRY – SUTHERLAND NETWORK IN THE "PAPER CHAIN" COMPOUND Ba ₃ Cu ₃ In ₄ O ₁₂ <i>Moscow State University, Russia</i>	

15.00-15.30	Volkova Olga , PhD., Invited lecturer THE NITRATES OF TRANSITION METALS AS A NEW FAMILY OF LOW-DIMENSIONAL MAGNETIC SYSTEMS <i>Moscow State University, Russia</i>	
15.30-15.45	Afanasiev Oleksandr RAMAN SCATTERING EVIDENCE FOR THE OCTAMERS FORMATION AND SPIN DIMERIZATION IN THE SPINEL CuIr_2S_4 <u>O. Afanasiev</u> , V. Gnezdilov, P. Lemmens, V. Tsurkan <i>ILTPE NASU, Ukraine</i>	
15.45-16.00	Mitroshenkov Nikolay LOW-TEMPERATURE HEAT CAPACITY AND THERMAL EXPANSION OF GdB_4 V.V. Novikov, A.V. Matovnikov, <u>N.V. Mitroshenkov</u> , A.V. Morozov, D.V. Avdashchenko <i>Bryansk State University, Russia</i>	
16.00-16.15	Tryputen Larysa POINT CONTACT SURFACE SPIN VALVE WITH AN EXCHANGE BIAS L.Yu. Tryputen <i>ILTPE NASU, Ukraine</i>	
16.15-16.30	Avdashchenko Dmitrii THE FEATURES OF LOW-TEMPERATURE HEAT CAPACITY OF RARE-EARTH ICOSAHEDRAL BORIDES V.V. Novikov, <u>D.V. Avdashchenko</u> , A.V. Matovnikov <i>Bryansk State University, Russia</i>	
16.30-16.45	COFFEE BREAK	
Parallel Section	STRENGTH AND PLASTICITY OF SOLIDS AT LOW TEMPERATURE	Page
Chair	YURIY SEMERENKO , <i>ILTPE NASU, Ukraine</i>	
11.15-11.45	Pustovalov Vitaliy V. , Prof., Dr., Invited lecturer PLASTIC DEFORMATION OF MATERIALS AT SUBKELVIN TEMPERATURES <i>ILTPE NASU, Ukraine</i>	
11.45-12.00	Vatazhuk Olena CHANGE OF LOW-TEMPERATURE RELAXATION PARAMETERS OF BORDONI'S PEAK IN NANOSTRUCTURED Cu AND Cu-Nb E.N. Vatazhuk <i>ILTPE NASU, Ukraine</i>	
12.00-12.15	Kalynovskiy Valeriy THE INFLUENCE OF QUASIHYDROEXTRUSION AT 77 K AND SUBSEQUENT ANNEALING ON THE DISSIPATIVE AND MECHANICAL PROPERTIES OF Al-Li ALLOY 1420 <u>V.V. Kalynovskiy</u> , L.A. Chirkina, M.B. Lazareva, V.S. Okovit, P.A. Khaymovich, V.I. Sokolenko, E.G. Zamler, V.P. Poyda, V.V. Bryuhovetskiy, A.V. Poyda <i>Institute for Solid-State Physics, Materials Science and Technologies within National Science Center 'Kharkiv Inst. of Phys. and Tech.' NASU, Ukraine</i>	
12.15-12.30	COFFEE BREAK	
12.30-12.45	Psaruk Igor LOW TEMPERATURE MECHANICAL CHARACTERISTICS AND THERMALLY ACTIVATION ANALYSIS OF PLASTICITY OF NANOCRYSTALLINE Ni-18%Fe ALLOY <u>I.A. Psaruk</u> , E.D. Tabachnikova, A.V. Podolskiy, S.N. Smirnov, P.K. Liaw <i>ILTPE NASU, Ukraine</i>	

12.45-13.00	Rusakova Anna LOW TEMPERATURE MICROMECHANICAL PROPERTIES OF NEW ULTRAFINE-GRAINED AND NANOCRYSTALLINE MATERIALS A.V. Rusakova <i>ILTPE NASU, Ukraine</i>	
13.00-13.15	Zabrodin Pavel THE MACROSCOPIC STRAIN LOCALIZATION IN ULTRAFINE-GRAINED Al - Li ALLOY P.A. Zabrodin <i>ILTPE NASU, Ukraine</i>	

16.30-16.45	COFFEE BREAK	
16.30-17.30	POSTER SESSION – I	
Section	SUPERCONDUCTIVITY	
P1	Porohov Nikolay SIMPLIFIED MANUFACTURING OF 2G HIGH TEMPERATURE SUPERCONDUCTING TAPES <u>Porohov N.V.</u> , Chuharkin M.L., Levin E.J., Rakov D.N., Vorobjeva A.J., Gavrilov B.M. and Varlashkin A.V. <i>NRC «Kurchatov Institute» RAS, Russia</i>	
P2	Direglazov Andrey DYNAMIC MAGNETIC RESPONSE OF NORMAL METAL AND HTSC (YBa ₂ Cu ₃ O _{7-x}) THIN FILMS <u>A.Yu.Direglazov</u> , G.G.Kaminskiy, A.L.Kasatkin, V.O.Moskaliuk, V.M.Pan G. V. Kurdyumov Institute for Metal Physics NASU, Ukraine	
P3	Koverya Valentin DISTRIBUTION OF TRANSPORT CURRENT FLOWING THROUGH A RING WITH TWO QUANTUM INTERFEROMETERS <u>V.P. Koverya</u> , A.V. Krevsun, S.I. Bondarenko, N.M. Levchenko <i>ILTPE NASU, Ukraine</i>	
P4	Kuzovoy Nikolay DYNAMICS OF A SINGLE VORTEX LINE UNDER THE INFLUENCE OF EXTERNAL VARIABLE FORCE S.V. Vasiliev, V.V. Chabanenko, <u>M.V. Kuzovyi</u> <i>DIPE NASU, Ukraine</i>	
P5	Merentsov Alexander STUDY OF SUPERCONDUCTING PHASE EXISTANCE LIMIT IN SOLID SOLUTIONS FeSe – FeTe <u>A.I. Merentsov</u> , K.A.Veshkurova, A.S. Volegov <i>Ural State University, Russia</i> <i>Institute of Metal Physics RAS, Russia</i>	
P6	Monarkha Volodimir MAGNETIC RELAXATION IN YBCO SINGLE CRYSTALS WITH UNIDIRECTIONAL TWIN BOUNDARIES <u>V.Yu.Monarkha</u> , V.P.Timofeev <i>ILTPE NASU, Ukraine</i>	
P7	Solomakha Dmitry PROXIMITY EFFECT IN HETEROSTRUCTURES FIS E.M. Rudenko, A.A. Krakovny, M.V. Dyakin, D.A. Solomakha <i>G. V. Kurdyumov Institute for Metal Physics NASU, Ukraine</i>	

P8	<p>Terekhov Andrey ELECTRICAL TRANSPORT IN SUPERCONDUCTORS $Pb_{1-x}Gd_xMo_6S_8$ (X = 0.5, 0.7 AND 0.9) IN THE TEMPERATURE RANGE 4.2 - 300K AND MAGNETIC FIELDS UP TO 14T <u>A.V. Terekhov</u>, S.A. Glagolev, A.S. Stepanov, J. Ćwik <i>ILTPE NASU, Ukraine</i></p>	
P9	<p>Yuzepovich Olga INFLUENCE OF TRANSPORT CURRENT ON MAGNETIC-FIELD TUNED SUPERCONDUCTING-INSULATOR TRANSITION IN INTERFACIAL NANOSTRUCTURES BASED ON PbTe/PbS HETEOSTRUCTURES <u>O.I. Yuzepovich</u>, S.V. Bengus, M.Yu. Mikhailov <i>ILTPE NASU, Ukraine</i> <i>International Laboratory of High Magnetic Fields and Low Temp., Poland</i></p>	
Section	ELECTRONIC PROPERTIES OF SOLIDS AT LOW TEMPERATURE	
P10	<p>Gamzatov Adler CRITICAL BEHAVIOR OF $La_{0.87}K_{0.13}MnO_3$ MANGANITE Gamzatov Adler <i>Amirkhanov Institute of Physics RAS, Russia</i></p>	
P11	<p>Golovchan Aleksay ELECTRONIC STRUCTURE AND LOW-TEMPERATURE MAGNETISM IN CR_2AS A.V. Golovchan <i>DIPE NASU, Ukraine</i></p>	
P12	<p>Dzyuba Mykhailo NONMONOTONIC TEMPERATURE-DEPENDENT RESISTANCE OF GRANULAR COBALTITES $(La_{1-x}Sr_x)_yAg_{1-y}CoO_3$ AT LOW TEMPERATURES <u>M.O. Dzyuba</u>, Yu.N. Chiang, O.G. Shevchenko <i>ILTPE NASU, Ukraine</i> <i>International Laboratory of High Magnetic Fields and Low Temp., Poland</i></p>	
P13	<p>Lizunov Vyacheslav INFLUENCE OF MAGNITUDE OF THE ATOMIC SCATTERING POTENTIAL ON MAGNETIC PHASE DIAGRAM OF DISORDERED ALLOYS E.G. Len, <u>V.V. Lizunov</u>, I.M. Melnyk, T.S. Len, L.N. Ushakova <i>G.V. Kurdyumov Institute for Metal Physics NASU, Ukraine,</i></p>	
P14	<p>Logosha Alexei PRESSURE EFFECT ON MAGNETIC PROPERTIES OF VALENCE FLUCTUATING SYSTEM $Ce(Ni_{1-x}Cu_x)_5$ <u>A.V. Logosha</u>, A.S. Panfilov <i>ILTPE NASU, Ukraine</i></p>	
P15	<p>Morlok Sergiy SUPERCONDUCTING ENERGY GAP IN MoRe ALLOYS <u>S.V. Morlok</u>, B.L.Konopatskyi, K.V. Khotkevych, A.N. Velikodnyi <i>ILTPE NASU, Ukraine</i></p>	
P16	<p>Suvorov Andrey ATTENUATION AND VELOCITY OF ULTRASOUND IN ZINC SELENIDE DOPED WITH CHROMIUM IONS IN MAGNETIC FIELD V.Yu. Mayakin, M.N. Sarychev, <u>A.A. Suvorov</u>, V.V. Gudkov <i>Ural Federal University, Russia</i></p>	

P17	Samofalova Viktoriia DISPLAY OF ORBITON EXITATIONS IN THE TUNNEL SPECTRA OF MANGANITES V. N. Samofalova <i>National Science Center 'Kharkiv Inst. of Phys. and Tech.' NASU, Ukraine</i>	
P18	Shevtsova Tatyana THE IRON SPIN STATE EFFECT ON THE PHONON SPECTRUM OF FeTe T. Shevtsova, A. Gusev, V. Gnezdilov, P. Lemmens, Yu. Pashkevich <i>DIPE NASU, Ukraine</i>	
Section	LOW TEMPERATURE MAGNETISM, SPINTRONICS	
P19	Bludov Oleksii SPECIFIC HEAT OF QUASI-ONE-DIMENSIONAL ANTIFERROMAGNET β -TeVO ₄ O.M. Bludov, Yu.O. Savina, V.A. Pashchenko, S.L. Gnatchenko, A. Szewczyk, P. Lemmens, and H. Berger <i>ILTPE NASU, Ukraine</i>	
P20	Demidov Andrey MAGNETIC PROPERTIES OF SINGLE CRYSTAL Nd _{0.6} Dy _{0.4} Fe ₃ (BO ₃) ₄ A. A. Demidov, I.A. Gudim, E.V. Eremin <i>Bryansk State Technical University, Russia</i>	
P21	Zhekov Konstantin LOW TEMPERATURE MAGNETIC PHASE TRANSITION IN NEODYMIUM FERROBORATE K.R. Zhekov, G.A. Zvyagina, I.V. Bilych, A.A. Zvyagin, I.A. Gudim, and V.L. Temerov <i>ILTPE NASU, Ukraine</i>	
P22	Zhekov Konstantin MAGNETOELASTIC PROPERTIES OF THE HOLMIUM FERROBORATE K.R. Zhekov, G.A. Zvyagina, I.V. Bilych, A.A. Zvyagin, I.A. Gudim, and V.L. Temerov <i>ILTPE NASU, Ukraine</i>	
P23	Maksymov Artur PHOTO- AND THERMAL-INDUCED TRANSITIONS IN ISING-LIKE AND PHENOMENOLOGICAL MODEL OF SPIN-CROSSOVER COMPOUNDS Ye.M. Daskal, A.Iu. Maksymov, Iu.V. Gudyma <i>Yuriy Fedkovych Chernivtsi National University, Ukraine</i>	
P24	Pashchenko Mariia MAGNETIC INTERMEDIATE STATE AND SCATTERING OF LIGHT IN TbFe ₃ (BO ₃) ₄ SINGLE CRYSTAL M.I. Pashchenko, S.L. Gnatchenko, I.S. Kachur, V.G. Piryatinskaya, V.A. Bedarev, A.V. Malakhovskii, L.N. Bezmaternykh, A.L. Sukhachev, V.L. Temerov <i>ILTPE NASU, Ukraine</i>	
P25	Pashchenko Mariia MAGNETIC AND RESONANCE INVESTIGATIONS OF TERBIUM FERROBORATE TbFe ₃ (BO ₃) ₄ M.I. Pashchenko, S.L. Gnatchenko, I.S. Kachur, V.G. Piryatinskaya, V.A. Bedarev, A.V. Malakhovskii, L.N. Bezmaternykh, A.L. Sukhachev, V.L. Temerov <i>ILTPE NASU, Ukraine</i>	

P26	Khrustalyov Volodymyr METAMAGNETIC TRANSITIONS IN ISING-LIKE ANTIFERROMAGNETS LiCoPO ₄ AND FeCO ₃ IN TILTED MAGNETIC FIELD <u>V.M. Khrustalyov</u> , V.M. Savitsky, M.F. Kharchenko <i>ILTPE NASU, Ukraine</i>	
P27	Rykova Anna MAGNETIC PROPERTIES OF NANOSTUCTURED Ba ₆ Mn ₂₄ O ₄₈ AT LOW TEMPERATURE A.S. Cherny, <u>A.I. Rykova</u> , E.N. Khatsko, A.V. Yeremenko <i>ILTPE NASU, Ukraine</i>	

TUESDAY, 7 JUNE		
PLENARY SESSION		
Chair	MARIIA PASHCHENKO , <i>ILTPE NASU, Ukraine</i>	
9.00-10.00	Jean-luc Doumont , Dr., SPIE invited lecturer STRUCTURING YOUR SCIENTIFIC PAPER <i>Founding partner Principiae, Belgium</i>	
10.00-10.30	COFFEE BREAK	
Section	SUPERCONDUCTIVITY	
Chair	YURIY YERIN , <i>ILTPE NASU, Ukraine</i>	
10.30-11.00	Vodolazov Denis Yu. , PhD., Invited lecturer ORIGIN OF THE HYSTERESIS OF THE CURRENT VOLTAGE CHARACTERISTICS OF SUPERCONDUCTING MICROBRIDGES NEAR THE CRITICAL TEMPERATURE <i>Institute for Physics of Microstructures RAS, Russia</i>	
11.00-11.30	Pankratov Andrej , Dr, Invited lecturer FLUCTUATIONAL PHENOMENA IN JOSEPHSON JUNCTIONS <i>Institute for Physics of Microstructures RAS, Russia</i>	
11.30-11.45	Revin Leonid OPTIMIZATION OF PHASE QUBIT PARAMETERS IN THE FAST SINGLE- PULSE READOUT PROCESS <u>L.S. Revin</u> , A.L. Pankratov <i>Institute for Physics of Microstructures RAS, Russia</i>	
11.45-12.00	Zhabko Dmitro JOSEPHSON JUNCTION WITH DIFFERENT DISTRIBUTION FUNCTION OF TRANSPARENCY <u>D.S. Zhabko</u> , O.V. Kudrja, A.V. Prokopenko, B.E. Shaternik <i>Taras Shevchenko National University of Kyiv, Ukraine</i>	
12.00-12.15	Komarova Olga MODIFICATION OF THE NORMAL-STATE BAND SPECTRUM AND CRITICAL TEMPERATURE IN CO-DOPED Bi ₂ Sr ₂ CaCu ₂ O _z <u>O.S. Komarova</u> , O.A. Martynova, V.E. Gasumyants <i>Saint-Petersburg State Polytechnical University, Russia</i>	
12.15-12.30	COFFEE BREAK	
12.30-13.00	Deryagina Irina , PhD., Invited lecturer COMPOSITION, MICROSTRUCTURE AND CRITICAL CURRENT DENSITY OF Nb ₃ Sn-BASED SUPERCONDUCTING COMPOSITES <u>I.L. Deryagina</u> , E.N. Popova, E.P. Romanov <i>Institute of Metal Physics RAS, Russia</i>	

13.00-13.15	Leksin Pavel EXPERIMENTAL REALIZATION OF THE SUPERCONDUCTING SPIN VALVE <u>P.V. Leksin</u> , N.N. Garif'yanov, I.A. Garifullin, J. Schumann, V. Kataev, O.G. Schmidt, B. Buchner <i>Zavoisky Physical-Technical Institute, Kazan Scientific Center RAS, Russia</i>	
13.15-13.30	Dziom Uladzislau "WHISPERING-GALLERY" MODES IN APPLICATION TO SURFACE IMPEDANCE MEASUREMENTS OF SUPERCONDUCTING SINGLE CRYSTALS <u>U.Y. Dziom</u> , A.F. Shevchun, M.R. Trunin <i>Institute of Solid State Physics RAS, Russia</i> <i>Moscow Institute of Physics and Technology, Russia</i>	
13.30-13.45	Kudrja Olena COMPUTER SIMULATION OF JOSEPHSON JUNCTION WITH DIFFERENT DISTRIBUTION FUNCTIONS OF TRANSPARENCY <u>O.V. Kudrja</u> , D.S. Zhabko, A.V. Prokopenko, B.E. Shaternik <i>Taras Shevchenko National University of Kyiv, Ukraine</i>	
14.00-15.00	LUNCH	
Section	SUPERCONDUCTIVITY (continue)	
Chair	YURIY YERIN , <i>ILTPE NASU, Ukraine</i>	
15.00-15.30	Sidorov Sergii ORDER PARAMETERS AND THE WIDTH OF THE FLUCTUATION FIELD OF THE HIGH TEMPERATURE SUPERCONDUCTORS <u>S.L. Sidorov</u> , V.Yu. Tarenkov, A.I. Dychenko, A.L. Solovjov <i>DIPE NASU, Ukraine</i>	
15.30-15.45	Tkachenko Mihail FLUCTUATION CONDUCTIVITY AND PSEUDOGAP IN THE LIGHTLY DOPED $\text{HoBa}_2\text{Cu}_3\text{O}_{7-\Delta}$ SINGLE CRYSTALS UNDER PRESSURE M.A. Tkachenko <i>ILTPE NASU, Ukraine</i> <i>V.N. Karazin Kharkiv National University, Ukraine.</i>	
16.00-16.15	COFFEE BREAK	
Parallel Section	MODERN ASPECTS OF MATHEMATICS AND MATHEMATICAL PHYSICS	
Chair	ELENA MOSKOVCHENKO , <i>ILTPE NASU, Ukraine</i>	
10.15-11.00	Bezuglyi Sergii , Dr., Invited lecturer PROBLEMS OF CLASSIFICATION OF HOMEOMORPHISMS OF THE CANTOR SET <i>ILTPE NASU, Ukraine</i>	
11.00-11.15	Kovalenko Sergii SYMMETRIES OF A CLASS OF (1+3)-DIMENSIONAL NONLINEAR BOUNDARY VALUE PROBLEMS OF THE STEFAN TYPE S.S. Kovalenko <i>Institute of Mathematics NASU, Ukraine</i>	
11.15-11.30	Khrabustovskyi Andrii ON PERIODIC RIEMANNIAN MANIFOLD WITH PREASSIGNED GAPS IN SPECTRUM OF LAPLACE-BELTRAMI OPERATOR A.V. Khrabustovskyi <i>ILTPE NASU, Ukraine</i>	

11.30-11.45	Potomkin Mykhailo ON TRANSMISSION PROBLEM FOR BERGER PLATES ON AN ELASTIC BASE M. Potomkin <i>ILTPE NASU, Ukraine</i>	
11.45-12.00	Khalina Kateryna ON CONTROLLABILITY PROBLEMS FOR THE WAVE EQUATION ON A HALF-AXIS WITH THE NEUMANN BOUNDARY CONTROL K.S. Khalina <i>ILTPE NASU, Ukraine</i>	
12.15-12.30	COFFEE BREAK	
Chair	ANDRII KHRABUSTOVSKYI , <i>ILTPE NASU, Ukraine</i>	
12.30-12.45	Shcherbina Tatyana CHARACTERISTIC POLYNOMIALS OF THE WIGNER ENSEMBLE T. Shcherbina <i>ILTPE NASU, Ukraine</i>	
12.45-13.00	Bezvershenko Yulia RESONANCE IN A DRIVEN TWO-LEVEL SYSTEM: ANALYTICAL RESULTS WITHOUT THE ROTATING WAVE APPROXIMATION <u>Yu.V. Bezvershenko</u> , P.I. Holod <i>Bogolyubov Institute for Theoretical Physics NASU, Ukraine</i>	
13.00-13.15	Kolisnyk Yevgen THE PLANCHEREL MEASURE FOR THE QUANTUM HYPERBOLIC SPACE Ye. Kolisnyk <i>ILTPE NASU, Ukraine</i>	
13.15-13.30	Mishchenko Yuriy COMPOSITE BOSE-TYPE PARTICLES AS DEFORMED BOSONS <u>Yu.A. Mishchenko</u> , A.M. Gavrilik <i>Bogolyubov Institute for Theoretical Physics NASU, Ukraine</i>	
13.30-13.45	Poplavskiy Mykhailo ON THE UNIVERSALITY CONJECTURE AT THE EDGE OF THE SPECTRUM: UNITARY MATRIX MODELS M.G. Poplavskiy <i>ILTPE NASU, Ukraine</i>	
14.00-15.00	LUNCH	
Parallel Section	MODERN ASPECTS OF MATHEMATICS AND MATHEMATICAL PHYSICS (continue)	
Chair	MYKHAILO POTOMKIN , <i>ILTPE NASU, Ukraine</i>	
15.00-15.15	Karpel Olena INFINITE MEASURES ON CANTOR SPACES O.M. Karpel <i>ILTPE NASU, Ukraine</i>	
15.15-15.30	Solomko Anton NEW SPECTRAL MULTIPLICITIES FOR ERGODIC FLOWS A.V. Solomko <i>ILTPE NASU, Ukraine</i>	
15.30-15.45	Mazur Ivan THE SKITOVICH-DARMOIS THEOREM FOR FINITE ABELIAN GROUPS (THE CASE OF N LINEAR FORMS OF N RANDOM VARIABLES) I.P. Mazur <i>ILTPE NASU, Ukraine</i>	

15.45-16.00	Krys'ko Rostyslav MODELING OF COMMUTATION PROCESSES IN JOSEPHSON LOGICAL ELEMENTS “AND” AND “OR” <u>R.R. Krysko</u> , M.V. Tyhanskyi <i>Lviv Polytechnic National University, Ukraine</i>	
16.00-16.15	COFFEE BREAK	
Chair	MYKHAILO POPLAVSKYI , <i>ILTPE NASU, Ukraine</i>	
16.15-16.30	Stogniy Nadezhda PLANE WAVE SCATTERING ON CHAIN OF SILVER NANOWIRES <u>N.P. Stogniy</u> , N.K. Sakhnenko <i>Kharkiv National University of Radioelectronics, Ukraine</i>	
16.30-16.45	Zlotnik Michael MATHEMATICAL AND COMPUTER MODELING OF OPTIMIZATION PROBLEMS OF CUTTING, PACKING AND COVERING <u>M.V. Zlotnik</u> , A.M. Chugay <i>A.M. Pidgorny Institute for Mechanical Engineering Problems NASU, Ukraine</i>	
16.45-17.00	Limarenko Inna SOLUTION OF OPTIMUM ALLOCATION PROBLEM OF RECTANGULARS IN A RING I.V. Limarenko <i>Kharkiv National University of Radioelectronics, Ukraine</i>	
16.00-17.00	POSTER SECTION – II	
Section	QUANTUM LIQUIDS AND QUANTUM CRYSTALS, CRYOCRYSTALS	
P1	Birchenko Oleksandr SPIN-SPIN RELAXATION TIME AND DIFFUSION COEFFICIENT IN HCP DILUTE ³ He- ⁴ He MIXTURE <u>A.P. Birchenko</u> , Ye.O. Vekhov, N.P. Mikhin <i>ILTPE NASU, Ukraine</i>	
P2	Gorbenko Ievgen <i>AB INITIO</i> CALCULATION OF QUADRUPOLE INTERACTION IN CRYOCRYSTALS UNDER PRESSURE <u>Ie.Ie. Gorbenko</u> , E.P. Troitskaya, Val.V. Chabanenko, I.V. Zhikharev, E.A. Pilipenko <i>Luhansk Taras Shevchenko National University, Ukraine</i>	
P3	Grytsenko Ivan THE MECHANISMS OF ACOUSTIC AND VISCOUS DISSIPATION OF AN OSCILLATING QUARTZ TUNING FORK IMMERSSED IN HE II <u>I.A. Grytsenko</u> , A.A. Zadorozhko <i>ILTPE NASU, Ukraine</i>	
P4	Khyzhniy Ivan RELAXATION OF CHARGED CENTERS IN SOLID KRYPTON PRE-IRRADIATED BY AN ELECTRON BEA <u>I. Khyzhniy</u> , S. Uyutnov, G. Gumenchuk, A. Ponomaryov, E. Savchenko, and V. Bondybey <i>ILTPE NASU, Ukraine</i>	
P5	Legchenkova Irina DYNAMICS OF DOPANT PARTICLES IN OCTAHEDRAL VOIDS OF FULLERITE C ₆₀ <u>Legchenkova I.V.</u> and Strzhemechny M.A. <i>ILTPE NASU, Ukraine</i>	

P6	Nechay Andrei PECULIARITIES IN THE FORMATION OF POLARIZATION BREMSSTRAHLUNG FROM THE SCATTERING OF ELECTRONS BY XE CLUSTERS <u>A.N. Nechay</u> , E.V. Gnatchenko, V.N. Samovarov, A.A. Tkachenko <i>ILTPE NASU, Ukraine</i>	
P7	Rubanskyi Valentyn EXPERIMENTAL TECHNIQUE FOR INVESTIGATION DISORDERED PHASE IN SOLID HELIUM <u>V.Yu. Rubanskyi</u> , A.A. Lisunov, S.P. Rubets <i>ILTPE NASU, Ukraine</i>	
P8	Sagan Vladimir THERMAL CONDUCTIVITY OF CYCLIC HYDROCARBONS <u>V.V. Sagan</u> , V.A. Konstantinov, V.P. Revyakin <i>ILTPE NASU, Ukraine</i>	
P9	Tikhiy Vladislav USAGE A COMPUTER SOUND CARD AS THE SOUND GENERATOR FOR RESEARCH PROPERTIES OF HE II V.A. Tikhiy <i>ILTPE NASU, Ukraine</i>	
P10	Vdovichenko Georgiy THE TERMAL CONDUCTIVITY OF THE MOLECULAR GLASS OF A TERT-BUTANOL – GLYCERINE SOLUTION <u>G.A. Vdovichenko</u> , I.V. Sharapova, A.I. Krivchikov <i>ILTPE NASU, Ukraine</i>	
P11	Vekhov Yegor NMR STUDY OF VACANCIES IN HCP SOLID HELIUM <u>Ye.O. Vekhov</u> , A.P. Birchenko, and N.P. Mikhin <i>ILTPE NASU, Ukraine</i>	
Section	BIOPHYSICS, LOW TEMPERATURE PHYSICS OF MACROMOLECULES	
P12	Zhytnyakovskaya Olga TICT DYES AS POSSIBLE COMPONENTS OF LIPID NANOSYSTEMS <u>O.A. Zhytnyakovskaya</u> , O.K. Kutsenko, V.M. Trusova, G.P. Gorbenko, T.Deligeorgiev, S. Kaloyanova, N. Lesev <i>V.N. Karazin Kharkiv National University, Ukraine</i>	
Section	PHYSICS OF NANOSTRUCTURES AND LOW DIMENSIONAL SYSTEMS	
P13	Danylchenko Oleksandr SPECTROSCOPIC OBSERVATION OF (N ₂) ₂ DIMERS IN FREE CLUSTERS OF NITROGEN <u>O. G. Danylchenko</u> , Yu.S. Doronin, S.I. Kovalenko, M.Yu. Libin, V.N. Samovarov, V.L. Vakula <i>ILTPE NASU, Ukraine</i>	
P14	Fedorchenko Alexey STRUCTURE AND MAGNETIC PROPERTIES OF MULTI-WALLED CARBON NANOTUBES MODIFIED WITH IRON AND COBALT <u>A.V. Fedorchenko</u> , I.P. Zhuravleva, Yu.I. Prylutsky <i>ILTPE NASU, Ukraine</i>	
P15	Mirzoiev Ilgar TRANSPORT PROPERTIES OF GETEROSYSTEMS WITH CHROMIUM DISILICIDE NANOCRISTALLITES BURIED IN SILICON	

	<u>I.G. Mirzoev</u> , I.B. Berkutov, V.V. Andrievskii, Yu.F. Komnik, N.G. Galkin <i>ILTPE NASU, Ukraine</i>	
P16	Khomenko Alexei PHASE DIAGRAM OF KINETIC REGIMES OF BOUNDARY FRICTION I.A. Lyashenko, <u>A.V. Khomenko</u> , L.S. Metlov <i>Sumy State University, Ukraine</i>	
P17	Kononenko Victoria NATURE OF CONDUCTION IN THE LANTHANUM MANGANITE NANOCOMPOSITES <u>V.V. Kononenko</u> , V.A. Boychenko, D.I. Boychenko <i>DIPE NASU, Ukraine</i>	
P18	Krishtop Vladimir LEVERAGE FACTOR IN Al _{0.4} Ga _{0.6} As/GaAs RESONANT TUNNELING DIODE <u>V.G. Krishtop</u> , V.G Popov <i>Institute of Microelectronics Technology RAS, Russia</i> <i>Moscow Institute of Physics and Technology, Russia</i>	
P19	Lukienko Irina MAGNETIC AND MAGNETO-OPTICAL INVESTIGATIONS OF MULTILAYERED CO/CU NANOFILMS <u>I.M. Lukienko</u> , M.F. Kharchenko, A.V. Fedorchenko, V.A. Desnenko <i>ILTPE NASU, Ukraine</i>	
P20	Lyashenko Iakov FRICTION MAP FOR STICK-SLIP MODE IN BOUNDARY REGIME <u>I.A. Lyashenko</u> <i>Sumy State University, Ukraine</i>	
P21	Maksimov Viktor ESTIMATION OF THE DIFFUSIVITY GOVERNING NANOCRYSTALLIZATION OF Al-BASED AMORPHOUS ALLOYS S.G. Rassolov, <u>V.V. Maksimov</u> , V.V. Popov, K.A. Svyrydova <i>DIPE NASU, Ukraine</i>	
P22	Moskaltsova Anastasiya FEATURES OF THE FMR IN ARRAYS OF PERMALLOY'S SUBMICRON MAGNETIC DISKS <u>A.N. Moskaltsova</u> , S.V. Nedukh <i>National Technical University "Kharkiv Polytechnic Institute", Ukraine</i>	
P23	Mozul Konstantin EFFECTIVE MAGNETIC ANISOTROPY FIELD FOR SYSTEM OF SMALL FERRITE PARTICLES CoFe ₂ O ₄ IN THE TEMPERATURE RANGE 4,2K – T _C O.M. Bludov, <u>K.A. Mozul</u> , Yu.O. Savina, V.O. Shein, E.V. Shurinova <i>ILTPE NASU, Ukraine</i>	
P24	Ivakhnenko Natalia INFLUENCE OF TITANIUM NITRIDE ON THE DIAMOND-LIKE FILMS STRUCTURE <u>N.N. Ivakhnenko</u> <i>DIPE NASU, Ukraine</i>	
17.30	CITY EXCURTION	

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Chair	OLGA YUZEPHOVICH, <i>ILTPE NASU, Ukraine</i>	

9.00-9.30	Dolbin Alexander V. , PhD., Invited lecturer THE QUANTUM EFFECTS IN CARBON NANOMATERIALS <i>ILTPE NASU, Ukraine</i>	
9.30-9.45	Parafilo Anton INFLUENCE OF ELECTRON-ELECTRON AND ELECTRON-PHONON INTERACTIONS ON CHIRAL TUNNELING IN METALLIC CARBON NANOTUBES A.D. Osipanova, <u>A.V. Parafilo</u> <i>V.N. Karazin Kharkiv National University, Ukraine</i>	
9.45-10.00	Babichev Andrey ON POSSIBILITY OF CONTRIBUTION OF DIFFERENT TYPES OF CARRIERS IN ELECTRON TRANSPORT IN CVD-GROWN CENTIMETER SIZE GRAPHENE <u>A.V. Babichev</u> , V.E. Gasumyants, V.Y. Butko <i>Ioffe Physical Technical Institute RAS, Russia</i> <i>St. Petersburg Academic University, Nanotechnology Research and Education Centre RAS, Russia</i>	
10.00-10.15	Babichev Andrey ELECTRICAL CHARACTERIZATION OF SCALABILITY OF PHASE CHANGE MATERIALS <u>A.V. Babichev</u> , O.A. Martynova, M. Petrychuk, V.E. Gasumyants, S. Pud, V. Sydoruk, A. Offenhäusser, S. Vitusevich <i>Forschungszentrum Jülich, Peter Grünberg Institut, Germany</i> <i>Ioffe Physical Technical Institute RAS, Russia</i> <i>St. Petersburg Academic University, Nanotechnology Research and Education Centre RAS, Russia</i>	
10.15-10.30	Barabashko Maxim THE FEATURES OF THE LOW TEMPERATURE BEHAVIOR OF HEAT CAPACITY OF BUNDLES OF SINGLE-WALLED CARBON NANOTUBES <u>M.S. Barabashko</u> , M.I. Bagatskii, A.V. Dolbin, V.V. Sumarokov <i>ILTPE NASU, Ukraine</i>	
10.30-10.45	Gamayun Oleksandr DYNAMICAL SCREENING IN BILAYER GRAPHENE O.V. Gamayun <i>Bogolyubov Institute for Theoretical Physics NASU, Ukraine</i>	
10.45-11.00	Kravchuk Volodymyr CURRENT INDUCED VORTEX LATTICES IN NANOMAGNETS O.M. Volkov, <u>V.P. Kravchuk</u> , D.D. Sheka, Yu.B. Gaididei <i>Bogolyubov Institute for Theoretical Physics NASU, Ukraine</i>	
11.00-11.15	COFFEE BREAK	
Chair	KONSTANTIN YAGOTINTSEV , <i>ILTPE NASU, Ukraine</i>	
11.15-11.45	Rassolov Sergey G. , Dr., Invited lecturer THE TRANSIENT NUCLEATION AND DIFFUSION LIMITED GROWTH AS A MAIN PARAMETERS IN NANOCRYSTALLIZATION OF Fe- AND Al-BASED GLASSES <i>DIPE NASU, Ukraine</i>	
11.45-12.00	Slobodeniuk Artur DENSITY OF STATES OF GRAPHENE AT THE PRESENCE OF AHARONOV-BOHM AND CONSTANT MAGNETIC FIELDS <u>A.O. Slobodeniuk</u> , S.G. Sharapov, V.M. Loktev <i>Bogolyubov Institute for Theoretical Physics NASU, Ukraine</i>	

12.00-12.15	Solyanik Maria SPIN WAVES ON THE NONFERROMAGNETIC NANOTUBE SURFACE <u>M.A. Solyanik</u> <i>V.N. Karazin Kharkiv National University, Ukraine</i>	
12.15-12.30	Rodionov Yaroslav RELAXATION DYNAMICS OF THE ELECTRON DISTRIBUTION IN THE COULOMB BLOCKADE PROBLEM <u>Ya.I. Rodionov</u> , I.S. Burmistrov, N.M. Chtchelkatchev <i>L.D. Landau Institute for Theoretical Physics RAS, Russia</i>	
12.30-12.45	Svyrydova Kateryna STRUCTURAL PARAMETERS OF GLASSES AND NANOCOMPOSITES FORMED UNDER LINEAR HEATING IN $Al_{86}(NiCo)_8(Gd,Y,Tb)_6$ AMORPHOUS ALLOYS DETERMINED BY SAXS METHOD <u>K.A. Svyrydova</u> , S.G. Rassolov, V.I. Tkatch, I.V. Zhikharev, S.A. Kostyrya, V.I. Krysov, V.V. Maksimov <i>DIPE NASU, Ukraine</i>	
12.45-13.00	Vinnikov Nikolay INFLUENCE OF GAMMA-QUANTUM IRRADIATION ON SORPTION PROPERTIES AND RADIAL THERMAL EXPANSION OF SWNT BUNDLES A.V. Dolbin, V.B. Esel'son, V. G. Gavrillo, V.G. Manzhelii, <u>N.A. Vinnikov</u> , S.N. Popov, N.A. Tripachko, B.A. Danilchenko <i>ILTPE NASU, Ukraine</i>	
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Chair	MAXIM BARABASHKO , <i>ILTPE NASU, Ukraine</i>	
14.00-14.30	Vasiliev Sergey V. , PhD., Invited lecturer MAGNETIC, CONDUCTANCE AND DIELECTRIC PROPERTIES OF MANGANITE <i>DIPE NASU, Ukraine</i>	
14.30-14.45	Udovytska Ruslana ION-MIGRATION POLARIZATION OF CdHgTe SOLID SOLUTIONS DISORDERED BY IONIC IMPLANTATION OF B^+ F.F. Sizov, A.B. Smirnov, R.K. Savkina, <u>R.S. Udovytska</u> <i>V.Ye. Lashkaryov Institute of Semiconductor Physics NASU, Ukraine</i>	
14.45-15.00	Gigiberiya Vladimir SUSPENSION OF MULTIWALLED CARBON NANOTUBES WITH ORGANIC SOLVENTS <u>V.A. Gigiberiya</u> , I.A. Ar'ev, N.I. Lebovka <i>F.D. Ovcharenko Institute of Biocolloidal Chemistry NASU, Ukraine</i>	
16.00-18.00	WELCOME PARTY	
Parallel section	BIOPHYSICS, LOW TEMPERATURE PHYSICS OF MACROMOLECULES	Page
Chair	VITALIY CHAGOVETS , <i>ILTPE NASU, Ukraine</i>	
9.00-9.30	Glamazda Alexander , PhD., Invited lecturer LUMINESCENCE OF CARBON NANOTUBES: FROM DISCOVERY TO APPLICATION <i>ILTPE NASU, Ukraine</i>	
9.30-9.45	Zarudnev Eugene INTERACTION OF CARBON NANOTUBE WITH CATIONIC PORPHYRINE: SPECTROSCOPY AND MOLECULAR DYNAMIC	

	MODELING <u>E.S. Zarudnev</u> , A.M. Plokhotnichenko, A. Ju. Glamazda, V.S. Leontiev, V.A. Karachevtsev <i>ILTPE NASU, Ukraine</i>	
9.45-10.00	Brovarets Olga QUNTUM-CHEMICAL INVESTIGATION OF THE IONIZATION MECHANISM OF THE SPONTANEOUS POINT MUTATIONS <u>O.O. Brovarets</u> , D.M. Hovorun <i>Institute of Molecular Biology and Genetics NASU, Ukraine</i> <i>Institute of High Technologies, Kyiv National University, Ukraine</i>	
10.00-10.15	Karachevtsev Maksym PECULARITIES OF POLYNUCLEOTIDES WRAPPED AROUND CARBON NANOTUBES: MOLECULAR DYNAMICS MODELING <u>M.V. Karachevtsev</u> <i>ILTPE NASU, Ukraine</i>	
10.15-10.30	Zobnina Valentuna DETERMINATION OF SOME FEATURES OF FORMATION OF NONCOVALENT COMPLEXES OF POLYETHERS ON THE BASE OF ANALYSIS OF THEIR CLUSTER SETS PARAMETERS <u>V.G. Zobnina</u> , V.V. Chagovets, O.A. Boryak, M.V. Kosevich <i>ILTPE NASU, Ukraine</i>	
10.30-10.45	Chagovets Vitaliy STUDY OF SILVER NANOCCLUSERS PRODUCED IN ETHYLENE GLYCOL BY MEANS OF LASER DESORPTION/IONIZATION MASS SPECTROMETRY <u>V.V. Chagovets</u> , O.A. Boryak, V.V. Orlov, V.S. Shelkovsky, M.V. Kosevich <i>ILTPE NASU, Ukraine</i>	
11.00-11.15	COFFEE BREAK	

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Chair	SERGEJ SHEVCHENKO, <i>ILTPE NASU, Ukraine</i>	
9.00.-9.30	Kolesnichenko Yuriy A. , Prof., Dr., Invited lecturer CAN WE LOOK AT THE FERMI SURFACE? <i>ILTPE NASU, Ukraine</i>	
9.30-9.45	Wulferding Dirk STRONG ORBITAL FLUCTUATIONS IN THE QUANTUM SPIN DIMER SYSTEM $Sr_3Cr_2O_8$ <u>D. Wulferding</u> , P. Lemmens, K.-Y. Choi, V. Gnezdilov, S. Lee, H. Ueda, Y. Ueda, D. Quintero-Castro, A.T.M.N. Islam, and B. Lake <i>Institut für Physik der Kondensierten Materie, Germany</i> <i>Braunschweig International Graduate School of Metrology, Germany</i>	
9.45-10.00	Babkin Roman THE EFFECTIVE NUCLEAR CHARGE DETERMINING BY THE ESR DATA USING A SEMIEMPIRICAL MODIFIED CRYSTAL FIELD THEORY <u>R. Babkin</u> , K. Lamonova, S. Orel, Yu. Pashkevich, <u>V. Meshcheryakov</u> <i>DIPE NASU, Ukraine</i>	
10.00-10.15	Boichenko Vera TUNNELING SPECTROSCOPIC STUDIES OF THE ELECTRONIC STRUCTURE AND PSEUDOGAP PHENOMENA IN COLOSSAL MANGANITES $La_{2/3}Ca_{1/3}MnO_3$ AND $La_{2/3}Sr_{1/3}MnO_3$	

	<u>V.A. Boichenko</u> , V.Yu. Tarenkov, A.I. Dyachenko, V.N. Krivoruchko <i>DIPE NASU, Ukraine</i>	
10.15-10.30	Martynova Olga ELECTRON TRANSPORT PHENOMENA IN $\text{Sm}_{1-x}\text{Ca}_x\text{MnO}_3$ <u>O.A. Martynova</u> , V.E. Gasumyants <i>Saint-Petersburg State Polytechnical University, Russia</i>	
10.30-10.45	Fedorchenko Alexey MAGNETIC AND SUPERCONDUCTING PROPERTIES OF NEW IRON-BASED SUPERCONDUCTORS <u>A.V. Fedorchenko</u> , I.P. Zhuravleva, V.V. Tsurkan, A.N. Vasiliev <i>ILTPE NASU, Ukraine</i>	
10.45-11.00	Khotkevych Natalia AHARONOV-BOHM-TYPE OSCILLATIONS IN A SYSTEM OF TWO TUNNEL POINT-CONTACTS IN THE PRESENCE OF A SINGLE SCATTERER <u>N.V. Khotkevych</u> , Yu.A. Kolesnichenko, and J.M. van Ruitenbeek <i>ILTPE NASU, Ukraine</i>	
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Section	THEORETICAL PHYSICS	Page
Chair	ANDRIY KIIYKO , <i>ILTPE NASU, Ukraine</i>	
11.15-11.45	Yerin Yuriy , Invited lecturer TYPE 1.5 SUPERCONDUCTIVITY <i>ILTPE NASU, Ukraine</i>	
11.45-12.00	Kryvchikov Oleksii MONTE-CARLO SIMULATION OF ANISOTROPIC SHASTRY-SUTHERLAND LATTICE IN THE FRAMEWORK OF CLASSICAL HEISENBERG MODEL V.V. Slavin, <u>O.O. Kryvchikov</u> <i>ILTPE NASU, Ukraine</i>	
12.00-12.15	Godovanaya Nataliya ELECTRON AND PHONON SPECTRUM OF ONE-DIMENSIONAL NANOSTRUCTURES ON THE CRYSTAL SURFACE <u>N. V. Godovannaya</u> , O. V. Kotlyar, K. V. Kravchenko <i>V.N. Karazin Kharkiv National University, Ukraine</i>	
12.15-12.30	Klochko Maria EXISTENCE REQUIREMENTS AND VIBRATIONAL CHARACTERISTICS OF BCC PHASE IN VAN DER WAALS CRYSTALS <u>M. S. Klochko</u> , O. V. Kotlyar <i>V.N. Karazin Kharkiv National University, Ukraine</i>	
12.30-12.45	Kotlyar Oleksandr IMPURITY LEVELS IN ELECTRON SPECTRUM OF GRAPHENE <u>O.V. Kotlyar</u> , K.V. Kravchenko <i>ILTPE NASU, Ukraine</i>	
12.45-13.00	Krishtop Tatiana NONEQUILIBRIUM NOISE IN BALLISTIC CONTACTS K.E. Nagaev, <u>T.V. Krishtop</u> , N.Yu. Sergeeva <i>Kotel'nikov Institute of Radioengineering and Electronics RAS, Russia</i>	
13.00-14.00	LUNCH	
14.00-15.00	INSTITUTE EXCURSION	
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Chair	ANDRIY KIIYKO , <i>ILTPE NASU, Ukraine</i>	

14.45-15.15	Gogadze Gurami A. , Dr., Invited lecturer COHERENT QUANTUM PHENOMENA IN MESOSCOPIC METALLIC CONDUCTORS <i>ILTPE NASU, Ukraine</i>	
15.15-15.30	Laptev Denis NONLINEAR OSCILLATIONS OF THE FINITE-SIZE HIROTA LATTICE M.M. Bogdan, <u>D.V. Laptev</u> <i>ILTPE NASU, Ukraine</i>	
15.30-15.45	Pankratova Maryna VORTEX AND DOMAIN STRUCTURE OF A FILM FERRO/ANTIFERROMAGNET SYSTEMS WITH A ROUGH INTERFACE <u>M.L. Pankratova</u> , A.S. Kovalev <i>ILTPE NASU, Ukraine</i>	
15.45-16.00	Rebesh Anastasiia NON-STANDARD DEFORMATIONS OF THE BOSE GAS MODEL AND VIRIAL EXPANSIONS <u>A.P. Rebesh</u> , O.M. Gavrilik <i>Bogolyubov Institute for Theoretical Physics NASU, Ukraine</i>	
16.00-16.15	Sokolovsky Sergey ON THEORY OF HEAT CODUCTIVITY OF INSULATORS S.A. Sokolovsky <i>Prydniprovs'ka State Academy of Civil Engineering and Architecture, Ukraine</i>	
16.15-16.30	Kravchenko Kyrylo QUASIPARTICLE SPECTRA OF NIOBIUM DISELENIDE AND CARBON NANOFILMS O.V. Kotlyar, <u>K.V. Kravchenko</u> <i>ILTPE NASU, Ukraine</i>	
16.30-16.45	COFFEE BREAK	
16.45-17.30	ROUND TABLE "Young Scientists Workshop"	
17.30	CONCERT (Classical music)	
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Chair	OLEKSANDR DANYLCHENKO , <i>ILTPE NASU, Ukraine</i>	
9.00-9.30	Maidanov Vladimir A. , Dr., Invited lecturer QUANTUM EFFECTS IN SOLID HELIUM <i>ILTPE NASU, Ukraine</i>	
9.30-9.45	Bannikova Natalia DYNAMICS OF CONDENSATE AS A SUBSYSTEM OF SUPERFLUID BOSE GAS N.N. Bannikova, A.I. Sokolovsky <i>Oles Gonchar Dnepropetrovsk National University, Ukraine</i>	
9.45-10.00	Zadorozhko Aleksey DISSIPATION MECHANISM OF THE FIRST SOUND IN THE DEVELOPMENT OF QUANTUM TURBULENCE <u>A.A. Zadorozhko</u> , I.A. Grytsenko <i>ILTPE NASU, Ukraine</i>	
10.00-10.15	Danchuk Victor STATIC DISORDER IN CO ₂ -Kr CRYOALLOYS <u>V.V. Danchuk</u> , A.A. Solodovnik <i>ILTPE NASU, Ukraine</i>	

10.15-10.30	Degtyaryov Igor THE FUTURES OF LIQUID ^3He - ^4He MIXTURE PHASE DIAGRAM IN NARROW CYLINDER I.A. Degtyaryov <i>ILTPE NASU, Ukraine</i>	
10.30-10.45	Gusevik Nadezhda HYDRODYNAMICS OF SUPERFLUID BOSE LIQUID AS A HYDRODYNAMICS OF AN ONE-COMPONENT SYSTEM <u>N. G. Gusevik</u> , A. I. Sokolovsky <i>Secondary School No.21, Ukraine</i>	
10.45-11.00	COFFEE BREAK	
11.00-11.15	Konotop Oleksiy DETERMINATION OF THE HAGENA RELATION FOR BINARY RARE GAS CLUSTERS <u>O.P. Konotop</u> , O.G. Danylchenko, S.I. Kovalenko, V.N. Samovarov <i>ILTPE NASU, Ukraine</i>	
11.15-11.30	Lisunov Alexandr A SEARCH FOR DISORDERED PHASE IN SOLID ^3He IN MILIKELVIN REGION <u>A.A. Lisunov</u> , V.Yu. Rubanskyi, S.P. Rubets <i>ILTPE NASU, Ukraine</i>	
11.30-11.45	Nasyedkin Kostyantyn A NEW TRANSITION IN 2D ELECTRON SOLID OVER LIQUID HELIUM <u>K.A. Nasyedkin</u> , V.E. Syvokon <i>ILTPE NASU, Ukraine</i>	
11.45-12.00	Rogova Svetlana UNUSUAL FORM RESONANCES OF SECOND SOUND K. Nemchenko, <u>S. Rogova</u> <i>V.N. Karazin Kharkiv National University, Ukraine</i>	
12.00-12.15	Rubets Sergey FLUCTUATION EFFECTS IN CONCENTRATED ^3He - ^4He SOLID MIXTURES NEAR THE PHASE SEPARATION TEMPERATURE T.N. Antsygina, K.A. Chishko, A.A. Lisunov, V.A. Maidanov, V.Yu. Rubanskyi, <u>S.P. Rubets</u> , E.Ya. Rudavskii <i>ILTPE NASU, Ukraine</i>	
12.15-12.30	Rukin Alexey ON THE POSSIBILITY OF OBSERVATION OF VORTICES IN SUPERFLUID SYSTEMS BY MEASURING THEIR ELECTRIC FIELDS <u>A.S. Rukin</u> , S.I. Shevchenko <i>ILTPE NASU, Ukraine</i>	
12.30-12.45	Smorodin Oleksandr CONDUCTIVITY OF THE SURFACE ELECTRONS IN LOW-DIMENSIONAL SYSTEM <u>A.V. Smorodin</u> , V.A. Nikolaenko, and S.S.Sokolov <i>ILTPE NASU, Ukraine</i>	
12.45-13.00	Chagovets Tymofiy VISUALISATION OF THERMAL COUNTERFLOW IN SUPERFLUID HELIUM <u>T.V. Chagovets</u> , S.W. Van Sciver <i>National High Magnetic Field Laboratory, U.S.A. Institute of Physics, Academy of Science of the Czech Republic, Czech Republic</i>	

	FRIDAY, 10 JUNE	
	PLENARY SESSION	
Chair	MARIIA PASHCHENKO , <i>ILTPE NASU, Ukraine</i>	
9.00-10.00	Hoffmann Axel , Ph.D., IEEE, Invited lecturer PURE SPIN CURRENTS: DISCHARGING SPINTRONICS <i>Materials Science Division, Argonne National Laboratory, USA</i>	
10.00-11.00	Charles W. Clark , Dr., OSA, Invited lecturer NEXT GENERATION ATOMTRONICS <i>Joint Quantum Institute National Institute of Standards and Technology and the University of Maryland, USA</i>	
Section	OPTICS AND SPECTROSCOPY, PHOTONICS. OPTICAL INVESTIGATIONS AT LOW TEMPERATURES	
Chair	SERGII POPEREZHAI , <i>ILTPE NASU, Ukraine</i>	
11.00-11.30	Lisetski Longin N. , Prof., Dr., Invited lecturer DISPERSIONS OF CARBON NANOTUBES IN LIQUID CRYSTALS AS A NEW CLASS OF COMPOSITE NANOMATERIALS <i>Inst. for Scintillation Mat., STC "Inst. for Single Crystals" NASU, Ukraine</i>	
11.30-11.45	Kurbatov Denys OPTICAL PROPERTIES OF ZnMnS FILMS <i>D. Kurbatov, S. Kshnyakina, O. Klymov, V. Melnik, Sumy State University, Ukraine</i>	
11.45-12.00	Zloba Denis PHOSPHORESCENCE OF META-BROMBENZOPHENONE <i>D.I. Zloba, L.M. Buravtseva ILTPE NASU, Ukraine</i>	
12.00-12.15	Tarasenko Artem MAGNETOOPTICAL PROPERTIES OF ANTIFERROMAGNET WITH AN ANTISYMMETRY CENTER IN AN EXTERNAL MAGNETIC FIELD <i>D.V. Kulagin, A.S. Savchenko, A.S. Tarasenko DIPE NASU, Ukraine</i>	
12.15-12.30	Tsybulskyy Volodymyr LOW TEMPERATURE LUMINESCENCE INVESTIGATION OF ZINC MOLYBDATE USING SYNCHROTRON RADIATION <i>V.S. Tsybulskyy, V.B. Kapustianyk, V.B. Mikhailik Ivan Franko National University of L'viv, Ukraine</i>	
12.30-12.45	Zolotariov Denis INTERACTION OF AN AIRY PULSE WITH A DIELECTRIC LAYER <i>D.A. Zolotariov, A.G. Nerukh Kharkiv National University of Radioelectronics, Ukraine</i>	
12.45-13.00	Zoryansky Viktor STRUCTURE AND PHOTOLUMINESCENCE OF FULLERITE C ₆₀ , SATURATED WITH MOLECULAR HYDROGEN <i>V.N. Zoryansky, K.A. Yagotintsev, P.V. Zinoviev ILTPE NASU, Ukraine</i>	
13.00-13-30	COFFEE BREAK OSA	
13.30	CLOSING	

*ILTPE NASU - B.I. Verkin Institute for Low Temperature Physics and Engineering of the NASU;
DIPE NASU - A.A. Galkin Donetsk Institute of Physics & Engineering of the NASU;*