

# MONDAY, 2 JUNE

8:00-10:00

## REGISTRATION

10:00-10:15      **OPENING OF THE CONFERENCE**  
                    Director of the B.Verkin ILTPE NASU  
                    Academician of the National Academy of Sciences of Ukraine  
                    Sergey Gnatchenko

*Conference hall*

## Plenary lectures of invited speakers

10:15-10:55    **Anniversary ceremony: Conference for Young Scientist “Low Temperature Physics” from 1964 to 2014**

10:55-11:35    A.A. Zvyagin  
**NEW MANIFESTATIONS OF MAJORANA EDGE FERMIONS IN QUANTUM CHAINS**  
*B.Verkin Institute for Low Temperature Physics and Engineering, Kharkov, Ukraine*

11:35-11:50



## Coffee Break

11:50-13.05    **Electronic properties of conducting and superconducting systems**

*Conference hall*

13:05-14:00

## Lunch

14:00-15:00

## LAB TOUR

15:00-16:30    **Electronic properties of conducting and superconducting systems (continue)**

*Conference hall*

## POSTER SESSION – I

- 16:30-17:30    • **Electronic properties of conducting and superconducting systems**
- Low Temperature Magnetism, Spintronics
  - Low Temperature Materials Science

## TUESDAY, 3 JUNE

Conference  
hall

### Plenary lectures of invited speakers

- 10:00-10:40 S.V. Zherlitsyn  
**SPIN-LATTICE EFFECTS IN SELECTED MAGNETIC MATERIALS**  
*Dresden High Magnetic Field Laboratory (HLD), Helmholtz-Zentrum Dresden-Rossendorf,  
Dresden D-01314, Germany*
- 10:40-11:20 S.I. Bondarenko  
**THE 50TH ANNIVERSARY OF THE JOSEPHSON RADIATION  
DETECTION**  
*B.Verkin Institute for Low Temperature Physics and Engineering, Kharkov, Ukraine*

11:20-11:35



Coffee Break

11:35-13.05

### Low Temperature Magnetism, Spintronics

Conference  
hall

13:05-14:00

### Lunch

Conference  
hall

### Plenary lectures of invited speakers

Conference  
hall

- 14:00-14:40 I.V. Krive  
**QUANTUM PHENOMENA IN CARBON NANOTUBES AND CARBON  
PEAPODS**  
*B.Verkin Institute for Low Temperature Physics and Engineering, Kharkov, Ukraine*
- 14:40-15:20 T. V. Chagovets<sup>1,2</sup>  
**VISUALIZATION OF HE II CO-FLOW AND COUNTERFLOW  
AROUND CYLINDER**  
<sup>1</sup>*Institute of Physics ASCR, v. v. i., Na Slovance 1999/2, 182 21 Praha 8, Czech Republic*  
<sup>2</sup>*National High Magnetic Field Laboratory, 1800 E. Paul Dirac Drive, Tallahassee, FL 32310–  
3706*

15:20-16:50

### Quantum Liquids and Quantum Crystal, Cryocrystals

Conference  
hall

#### POSTER SECTION – II

- **Quantum Liquids and Quantum Crystal, Cryocrystals**
- **Physics of Nanostructures and Low Dimensional Systems**
- **Optics and Spectroscopy, Photonics**
- **Optical Investigations at Low Temperatures**
- **Low Temperature Physics of Macromolecules, Biophysics.**

16:50-18:00

## WEDNESDAY, 4 JUNE

Conference  
hall

### Plenary lectures of invited speakers

10:00-10:40 Miguel A Ramos<sup>1</sup>, T. Pérez-Castañeda <sup>1</sup>, R. J. Jiménez-Riobóo <sup>2</sup>, C. Rodríguez-Tinoco <sup>3</sup>, J. Rodríguez-Viejo <sup>3</sup>

#### **LOW-TEMPERATURE SPECIFIC HEAT OF EXTREMELY STABILIZED GLASSES: DO TUNNELING STATES PERSIST OR DISAPPEAR?**

<sup>1</sup> *Laboratorio de Bajas Temperaturas, Departamento de Física de la Materia Condensada, Condensed Matter Physics Center (IFIMAC) and Instituto Nicolás Cabrera, Universidad Autónoma de Madrid, E-28049 Madrid, Spain*

<sup>2</sup> *Instituto de Ciencia de Materiales de Madrid, Consejo Superior de Investigaciones Científicas (ICMM-CSIC), E-28049 Madrid, Spain*

<sup>3</sup> *Nanomaterials and Microsystems Group, Physics Department, and MATGAS Research Centre, Universitat Autònoma de Barcelona, E-08193 Bellaterra, Barcelona, Spain*

10:40-11:20 Alexander I. Krivchikov

#### **HEAT TRANSFER IN SIMPLE MOLECULAR SOLIDS WITH DIFFERENT TYPES OF DISORDER**

*B.Verkin Institute for Low Temperature Physics and Engineering of NAS of Ukraine, Kharkiv, Ukraine*



### Coffee Break

11:20-11:35

### Physics of Nanostructures and Low Dimensional Systems

Conference  
hall

12:35-13:35

### Lunch

13:35-15:00

### LAB TOUR

15:00-16:30

### Physics of Nanostructures and Low Dimensional Systems (continue)

Conference  
hall

17:30-20:00

### WELCOME PARTY

## THURSDAY, 5 JUNE

<i>Conference hall</i>	<b>Plenary lectures of invited speakers</b>	
10:00-10:40	S.V. Malykhin <sup>1</sup> , V.A. Makhlaj <sup>2</sup> <b>THE EVOLUTION OF THE STRESS STATE AND TUNGSTEN STRUCTURE IN A THERMONUCLEAR REACTOR</b> <sup>1</sup> National Technical University «Kharkiv Polytechnic Institute», Kharkiv, Ukraine <sup>2</sup> National Science Center, “Kharkiv Institute of Physics and Technology” (NSC KIPT), Kharkiv, Ukraine	
10:40-11:20	Elena. Tabachnikova <b>CHANGES OF THE STRUCTURE AND THE MECHANICAL PROPERTIES OF TITANIUM IN THE TRANSITION TO NANOSTRUCTURED STATE BY DIFFERENT METHODS OF SEVERE PLASTIC DEFORMATION</b> <sup>1</sup> B.Verkin Institute for Low Temperature Physics and Engineering of NAS of Ukraine, Kharkov, Ukraine	
11:20-11:35	 <i>Coffee Break</i>	
11:35-12:35	<b>Low Temperature Materials Science</b>	<i>Conference hall</i>
12:35-13:35	<b>Lunch</b>	
13:35-15:00	<b>LAB TOUR</b>	
15:00-16:00	<b>Low Temperature Materials Science (continue)</b>	<i>Conference hall</i>
16:00-17:00	<b>Young Scientists Workshop in Round table format</b>	<i>Helium hall</i>
Chair	Mariia Pashchenko	
16:00-16:15	Mariia Pashchenko <b>INTRODUCTION: OSA &amp; SPIE PRESENTATION</b> <i>B.Verkin Institute for Low Temperature Physics and Engineering, Kharkov, Ukraine</i>	
16:15-16:30	Tymofiy Chagovets <b>RESEARCH EXPERIENCES IN HIGH MAGNETIC FIELD LABORATORY</b> <i>Institute of Physics, Prague, Czech Republic</i>	
16:30-16:45	Dmytro Kamenskyi <b>“BIG FACILITIES” PROGRAMME AT RADBOUD UNIVERSITY (NIJMEGEN): NARROW-BAND THZ FREE-ELECTRON LASER (FELIX) COMBINED WITH HIGH FIELD MAGNET LABORATORY (HFML)</b> <i>Radboud University, Nijmegen, Netherlands</i>	

## FRIDAY, 6 JUNE

<i>Conference hall</i>	<b>Plenary lectures of invited speakers</b>	
10:00-10:40	Svetlana Yefimova <b>LAMBDA-RATIOMETRIC FLUORESCENCE DETECTION AS AN EFFECTIVE TOOL TO STUDY NANOCARRIERS INTERACTIONS WITH LIVING CELLS IN DYNAMICS</b> <i>Institute for Scintillation Materials NAS of Ukraine, Kharkov, Ukraine</i>	
10:40-11:00	 <b>Coffee Break</b>	
11:00-12:30	<b>Optics and Spectroscopy, Photonics Optical Investigations at Low Temperatures</b>	<i>Conference hall</i>
11:00-13:00	<b>Low Temperature Physics of Macromolecules, Biophysics. (Parallel session)</b>	<i>Helium hall</i>
13:30-14:00	<b>Closing</b>	
14:00-15:00	<b>Lunch</b>	
15:00	<b>Concert of Classical Music</b>	