

## Program

### Monday, October 22

Institute of Physics

9:00            **Registration**

Auditorium 212. Institute of Physics.

10:00 – 10:15 **Opening Ceremony of School-2012**

#### Lectures

Auditorium 212. Institute of Physics.

10:15 – 11:00 **Yu.M. Bunkov** (Institut Neel, CNRS, Grenoble, France), “Spin superfluidity and magnon Bose – Einstein condensation”

11:00 – 11:25 **Coffee break**

Conference Hall 1. Institute of Physics.

11:25 – 12:10 **S.B. Orlinskii** (Kazan Federal University, Kazan, Russia), “Atherosclerotic Plaque and nanostructures”

12:10 – 12:55 **R.M. Rakhmatullin** (Kazan Federal University, Kazan, Russia), “Coupling Design for Pulse High frequency EPR Spectroscopy”

13:00 – 14:00 **Lunch**

#### Oral Session

Conference Hall 1. Institute of Physics.

14:00 – 14:15 **L.F. Galiullina**, “Investigation of cholesterol+model of biological membrane complex by NMR spectroscopy”

14:15 – 14:30 **R.R. Gazizulin**, “The magnon Bose-Einstein condensation in single crystal CsMnF<sub>3</sub>”

14:30 – 14:45 **D.S. Blokhin**, “Methods to control formation of micellar systems of sodium dodecyl sulfate in solution”

14:45 – 15:00 **K.R. Sharipov**, “Superparamagnetic properties in hole doped manganites”

15:00 – 15:15 **G.A. Tokarev**, “Double doping nanoparticles of hydroxyapatite”

15:15 – 15:30 **V.S. Iyudin**, “Electron spin polarization of supramolecules based on metalporphyrins”

15:30 – 15:45 **I.A. Irisova**, “Mechanochemically-doped Er<sup>3+</sup> and Yb<sup>3+</sup> cubic symmetry centers at the surface of fluorite nanoparticles”

15:45 – 16:00 **R.R. Gainov**, “Preliminary studies of chalcopyrite (CuFeS<sub>2</sub>) by NMR and Mössbauer effect”

16:00 – 16:30 **Coffee break**

16:30 – 16:45 **A.Yu. Orlova**, “Investigations of antimony-containing chalcogenides Ag<sub>5</sub>SbS<sub>4</sub> and CuPbSbS<sub>3</sub> by Sb NQR spectroscopy”

16:45 – 17:00 **S.V. Efimov**, “NMR Studies and Molecular Dynamics Simulation of Cyclosporin in Complex with Detergent Micelles”

- 17:00 – 17:15 **A.V. Khaliullina**, “Structural and dynamic properties of a channel protein transmembrane segment studied using solid-state NMR”
- 17:15 – 17:30 **I.A. Evlampiev**, “Preliminary NQR studies of Cu<sub>3</sub>SbS<sub>3</sub>”
- 17:30 – 17:45 **N.A. Krylatykh**, “Low-field NMR studies of gadolinium based contrast agents”
- 17:45 – 18:00 **K.R. Safiullin**, “Imaging using polarised <sup>3</sup>He at low magnetic fields”
- 18:00 – 18:15 **V.O. Sahin**, “EPR study of the spatial modulation of magnetization in La<sub>2-x</sub>Sr<sub>x</sub>CuO<sub>4</sub>”
- 18:15 – 18:30 **J.V. Mamedov**, “Magnetic resonance of GdMnO<sub>3</sub>”

## **Tuesday, October 23**

### **Lectures**

Conference Hall 1. Institute of Physics.

- 9:30 – 10:15 **V.V. Kachala** (Zelinskii Institute of Organic Chemistry, Moscow, Russia), “1D and 2D NMR for reaction monitoring and molecule analysis in ionic liquids”
- 10:15 – 11:00 **M.R. Gafurov** (Bruker Ltd, Moscow, Russia), “Overview Bruker BioSpin report”
- 11:00 – 11:25 **Coffee break**
- 11:25 – 12:10 **M.V. Eremin** (Kazan Federal University, Kazan, Russia), “Collective spin excitations in HTSC cuprates”
- 12:10 – 12:55 **S.N. Lukin** (Institute of Semiconductor Physics, Kiev, Ukraine), “Capabilities of HF/HF EPR”

13:00 – 14:00 **Lunch**

### **Oral Session**

Conference Hall 1. Institute of Physics.

- 14:00 – 14:15 **S.O. Rabdano**, “Hydration properties of organic molecules functional groups as studied by NMR-relaxation and quantum chemical calculations”
- 14:15 – 14:30 **S.S. Zalesskiy**, “Determination of Tris(dibenzylideneacetone)dipalladium Structure and Purity in Solution by Modern NMR Techniques”
- 14:30 – 14:45 **Yu.A. Savina**, “ESR study of antiferromagnetic zigzag chain system  $\beta$ -TeVO<sub>4</sub>”
- 14:45 – 15:00 **K.A. Kozhanov**, “Versatile coordination sphere dynamics in o-semiquinonic pincer nickel complexes: an EPR study and mechanistic aspects”
- 15:00 – 15:15 **M.N. Uvarov**, “EPR Study of Dynamics of Triplet Fullerenes in Glassy and Polymer Matrices”
- 15:15 – 15:30 **E.M. Zubanova**, “EPR study of kinetics and mechanism of phototransformations of tetraalkylammonium tetrachlorocuprates in low-temperature matrices”
- 15:30 – 15:45 **D.A. Pomogailo**, “Determination of the translational order of spin probe in smectic liquid crystal”
- 15:45 – 16:00 **O.V. Kravchyna**, “Charge ordering in Nd<sub>2/3</sub>Ca<sub>1/3</sub>MnO<sub>3</sub>: evidence for ferromagnetic correlations”
- 16:00 – 16:30 **Coffee break**

- 16:30 – 16:45 **I.A. Khodov**, “Spatial structure of felodipine in DMSO-d<sub>6</sub> solution by 1-D NOE and 2-D NOESY NMR spectroscopy”
- 16:45 – 17:00 **S.E. Kurnikov**, “Hydration properties of the Na<sup>+</sup> in aqueous solutions studied by NMR relaxation and quantum chemical calculations”
- 17:00 – 17:15 **E.A. Samohvalov**, “New mixed-valence tellurates Li<sub>1-x</sub>Mn<sub>2+x</sub>TeO<sub>6</sub> and LiMn<sub>2-x</sub>Fe<sub>x</sub>TeO<sub>6</sub>: magnetization and EPR studies”
- 17:15 – 17:30 **A.A. Pavlov**, “Spin crossover in cobalt(II) tris-dioximate complexes by EPR and NMR spectroscopy”
- 17:30 – 17:45 **G.V. Rodchenkov**, “Static and dynamic magnetic properties of Eu<sub>1-x</sub>Ca<sub>x</sub>CoO<sub>3-δ</sub>”
- 17:45 – 18:00 **D.A. Ovchinnikov**, “Structure of the 4-aminononafluorobiphenyl radical anion. Study by optically detected ESR”
- 18:00 – 18:15 **O.V. Zakiryanova**, “An examination of complexing between copper chloride (II) and 5-aminouracil in aqueous solutions using UV-visible spectrometry and NMR <sup>13</sup>C spectroscopy methods”
- 18:15 – 18:30 **A.V. Bogdanov**, “ESR study of photoorientation in azobenzene-containing liquid-crystalline polymer”
- 18:30 – 18:45 **V.G. Bayev**, “Palladium influence on magnetic anisotropy of Ni-Pd nanowire arrays chemically electrodeposited in porous anodized alumina”

## Wednesday, October 24

### Lectures

Conference Hall 1. Institute of Physics.

- 9:00 – 9:45 **F.S. Dzheparov** (Alikhanov Institute for Theoretical and Experimental Physics, Moscow, Russia), “Interplay of classical and quantum spin dynamics”
- 9:45 – 10:30 **V.A. Atsarkin** (Kotel’nikov Institute of Radio Engineering and Electronics, Moscow, Russia), “Ferromagnetism in terms of EPR spectroscopy”
- 10:30 – 10:55 **Coffee break**

### Oral Session

Conference Hall 1. Institute of Physics.

- 10:55 – 11:10 **T.V. Frantsuzenko**, “Spin dynamics in new layered antimonate Na<sub>4</sub>FeSbO<sub>6</sub>”
- 11:10 – 11:25 **M.I. Stratan**, “Spin dynamics in one-dimensional magnet vanadyl acetate VO(CH<sub>3</sub>COO)<sub>2</sub>”
- 11:25 – 11:40 **S.F. Petrova**, “Aerobic oxidation of 5-hydroxy-6-methyluracil in alkaline solutions”
- 11:40 – 11:55 **A.V. Fokin**, “Investigations of the locally compensated triclinic Fe<sup>3+</sup> EPR centers in lead germinate”
- 11:55 – 12:10 **I.N. Razmyslov**, “Investigation of the magnetic resonance spectra of the nanocomposite thin films”
- 12:10 – 12:25 **D.V. Kurzhunov**, “EPR-monitored redox titration of RcXDH and mAOH1 variants”
- 12:25 – 12:40 **O.I. Gromov**, “Structure of Cu(II) Alkyl Chlorocomplexes formed via tetrachlorocuprates photolysis: EPR, UV-Vis and DFT study”
- 12:40 – 12:55 **R.G. Dzhambulatov**, “Hydrophobic and hydrophilic interactions in carboxylic acid aqueous solutions”

13:00 – 14:00 **Lunch**

Assembly Hall of Kazan Federal University

14:00 – 18:00 Awarding Ceremony of Zavoisky Youth Scientific Prize Winners

## **Thursday, October 25**

### **Lectures**

Conference Hall 1. Institute of Physics.

9:00 – 9:45 **E.B. Fel'dman** (Institute of Problems of Chemical Physics, Chernogolovka, Russia), “Classical and Quantum Correlations in Spin Systems in Multiple Quantum NMR in Solids”

9:45 – 10:30 **O.A. Anikeenok** (Kazan Federal University, Kazan, Russia), “The secondary-quantization representation with a basis of partially nonorthogonal orbitals: transferred hyperfine interactions”

10:30 – 10:55 **Coffee break**

### **Oral Session**

Conference Hall 1. Institute of Physics.

10:55 – 11:10 **N.V. Orlov**, “Development of New Se-based Chiral Derivatization Reagent for Determination of Enantiomeric Purity of  $\alpha$ -Chiral Carboxylic Acids by NMR Spectroscopy”

11:10 – 11:25 **Yu.S. Kutin**, “Study of electric field gradients in ZnO by means of high-frequency EPR/ENDOR spectroscopy”

11:25 – 11:40 **A.S. Alexandrov**, “Nuclear pseudo quadrupole resonance of  $^{141}\text{Pr}$  in Van Vleck paramagnet  $\text{PrF}_3$ ”

11:40 – 11:55 **T.R. Safin**, “Magnetic system for NMR logging tool using cryogenic technologies”

11:55 – 12:10 **D.A. Sunyaev**, “Temperature dependence of the magnetic penetration depth and multicomponent order parameter in the  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ ”

12:10 – 12:25 **I.V. Romanova**, “Magnetic and magnetoelastic properties of lithium-rare-earth tetra-fluoride single crystals”

12:25 – 12:40 **E.M. Alakshin**, “NMR of  $^{141}\text{Pr}$ ,  $^{19}\text{F}$  and  $^3\text{He}$  of  $\text{PrF}_3$  nanoparticles at low temperature”

12:40 – 12:55 **M.A. Volodin**, “Study of the exchange interaction in relation to the concentration of spin labels in different solutions”

13:00 – 14:00 **Lunch**

14:00 – 18:00 **Excursion** to the G.R. Derzhavin's village

## **Friday, October 26**

### **Lectures**

Conference Hall 1. Institute of Physics.

- 9:15 – 10:00 **A.V. Klochkov** (Kazan Federal University, Kazan, Russia), “NMR of  $^3\text{He}$  in porous media”
- 10:00 – 10:45 **A.N. Yudin** (Kapitza Institute for Physical Problems, Moscow, Russia), “The use of NMR methods for investigation of new phases in superfluid  $^3\text{He}$ ”
- 10:45 – 11:15 **Coffee break**
- 11:15 – 12:00 **K.M. Salikhov**, (Zavoisky Physical-Technical Institute, Kazan, Russia), “Quantum computing”
- 12:00 – 13:00 **Closing Ceremony of School-2012**
- 13:00 – 14:00 **Lunch**