

V International workshop
 «Dzyaloshinskii-Moriya Interaction and Exotic Spin Structures»

Session 1. Monoaxial chiral helimagnets.

Session 2. DMI effect on the magnetic structure.

Session 3. Exotic spin structures (skyrmions).

Session 4. Evolution of the magnetic structure in helimagnets under high pressure.

Session 5. Spin excitations in helimagnets with DM interaction.

Session 6. Neutron scattering for non-collinear magnetism.

Session 7. Thin films and surface effects in cubic ferromagnets without center of symmetry

Monday. 8 July 2019

9.00 – 9.30

Opening ceremony

Session 1. Monoaxial chiral helimagnets

Chair: Kazuhisa Kakurai

9.30 – 10.15

Jun-ichiro Kishine
 Prof., The Open University
 of Japan, Japan

Highly nonlinear dynamics of chiral solitons in a mono-axial helimagnet

10.15 – 11.00

Yoshihiko Togawa,
 Dr., Osaka Prefecture
 University, Japan

Anomalous physical responses on chiral magnetic materials

11.00 -11.30

Coffee break

11.30 – 12.00

Alexander S. Ovchinnikov
 Prof., Ural Federal
 University
 Ekaterinburg, Russia

Theory of standing waves in finite-size soliton lattice

12.00 – 12.15

Alexey Tereschenko,
 Mr., Institute of
 Natural Sciences and
 Mathematics of Ural Federal
 University, Ekaterinburg,
 Russia

Magnetostriction effects in thin films of monoaxial chiral helimagnets: double sine-Gordon model

12.15– 12.30

Alexey Bykov,
 Dr., Petersburg Nuclear
 Physics Institute, Gatchina,
 Russia

Magnetic phase diagram of the uniaxial helimagnet $\text{Cr}_{1/3}\text{NbS}_2$: evidence from small angle neutron scattering

12.30 – 13.00

Oleg Utesov
 Dr., Petersburg Nuclear
 Physics Institute,
 Gatchina, Russia

Spiral plane flops in frustrated helimagnets in external magnetic field

13.00 – 14.00

Lunch

Session 2. DMI effect on the magnetic structure

Chair: **Alexander S. Ovchinnikov**

14:00 – 14:30	Igor Lyubutin, Prof., Shubnikov Institute of Crystallography of FSRC “Crystallography and Photonics” RAS	Helical Magnetic Structures in the Langasite Family Crystals Related to the Dzyaloshinskii-Morya Effect
14:30-15:00	Tetsuya Takeuchi, Dr. Low Temperature Center, Osaka University	Unique Magnetic Field versus Temperature Phase Diagrams in Cubic Chiral Antiferromagnet EuPtSi
15:00-15:30	Alexander Smirnov, Prof. P. L. Kapitza Institute for Physical Problems RAS	Spinons modified by uniform Dzyaloshinskii-Moriya interaction
15.30 -16.00		Coffee break
16:00-16:30	Hisatomo Harima, Prof., Kobe University, Japan	Fermi surfaces of cubic chiral ullmannite-type compounds
16:30-17:00	Andrey Rogalev, Dr., ESRF, France	X-ray spectroscopy of chiral molecular magnets
17:00-17:30	Roman Morgunov, Prof. Dr., Institute of Problems of Chemical Physics, Russia	Magnetization reversal in $KO_4(Cr(CN)_6)(Mn(S)-pn)(S)-pnHO_6$ chiral molecular ferrimagnet by FORC
17:30-17:15	Naoto Tsuchiya, Mr., Hiroshima University, Japan	Magneto-elastic coupling in Organic-Inorganic Materials having Ferroelasticity and Magnetic Long Range Order
17:15-18:15	Jun Akimitsu, Prof., Okayama University, Japan	Trial to carrier-doping in Sr_2IrO_4 with strong spin-orbit coupling
19.00		Welcome party

Tuesday. 9 July 2019

Session 3. Exotic spin structures (skyrmions).

Chairman **Javier Campo**

9.30 – 10.00	Isabelle Mirebeau Prof., LLB, Saclay, France	Spin textures induced by quenched disorder in a reentrant spin glass: vortices versus frustrated skyrmions
10:00-10:30	Kazuhisa Kakurai, Prof. Dr., Comprehensive Research Organization for Science and Society (CROSS), Japan	Skyrmion related neutron scattering research activities on TAIKAN in collaboration with RIKEN CEMS
10:30-11:00	Victor Ukleev Dr., Paul Scherrer Institute,	Element-specific soft X-ray spectroscopy, scattering and imaging

		studies of skyrmion-hosting compound $\text{Co}_8\text{Zn}_8\text{Mn}_4$
11.00– 11.30		Coffee break
11:30-12:00.	Evgeny Altynbaev, Dr., Petersburg Nuclear Physics Institute, Gatchina, Russia	Appearance of the skyrmion lattice in Fe-doped MnGe compounds
12.00 – 12.30	Tobias Weber Dr., Institut Laue-Langevin (ILL), France	Polarisation Analysis of the Nonreciprocal Skyrmion Dynamics in MnSi
12.30 – 12.45	Andrey Tsypilnikov, Mr., Petersburg Nuclear Physics Institute, Gatchina, Russia	Calculation of the spectrum of magnons on the skyrmion lattice in the Landau functions basis
12.45 – 13.00	Ankit Labh Mr., TUDelft, Delft, Netherlands	Magnetic correlations in the frustrated antiferromagnet FeCl_3
13.00 – 14.00		Lunch
Session 4. Evolution of the magnetic structure in helimagnets under high pressure. Chairman Jun-ichiro Kishine		
14:00-14:20	Denis Salamatin, Dr., Vereshchagin Institute for High Pressure Physics, RAS, Moscow, Troitsk, Russia	Magnetic ordering above 30 K in noncentrosymmetric YbCoC_2
14:20-14:40	Vladimir Sidorov, Dr., Vereshchagin Institute for High Pressure Physics, RAS, Moscow, Troitsk, Russia	Anomalous magnetism and Kondo- lattice state in noncentrosymmetric YbNiC_2 and their evolution at high pressure.
14:40-15:05	Shigeo Ohara, Prof., Nagoya Institute of Technology, Nagoya, Japan	Single Crystal Growth of Chiral Magnet YbNi_3Al_9 using Flux Method in a Temperature Gradient
15:05-15:30	Kazunori Umeo, Dr., N-BARD, Hiroshima University, Japan	Pressure-induced magnetic ordered phase in the chiral compound YbNi_3Ga_9 studied by Hall effect and magneto- resistance under pressures up to 12 GPa
15:30-16:00		Coffee break
16:00-16:20	Yusuke Kosaka, Dr., Okayama University, Japan	Neutron Scattering Experiments of CsCuCl_3 under High Magnetic Field and High Pressure

16:20-16:40	Hiroyasu Matsuura, Dr., The University of Tokyo, Japan	Theory of Magnetic Phase Diagram in Chiral Magnet CsCuCl ₃ under High Pressures
17.00	Excursion through the down-town Petrozavodsk	

Wednesday. 10 July 2019

Session 5. Spin excitations in helimagnets with DM interaction

Chairman: **Sergey Grigoriev**

9:30-10:00	Javier Campo Prof., Instituto de Ciencia de Materiales de Aragón – Universidad de Zaragoza, Zaragoza, Spain	The role of the thermal fluctuations in cubic helimagnets: stabilization of new phases at low temperature
10:00-10:25	Alla Petrova Dr., Institute for High Pressure Physics of RAS, Moscow, Russia	The physical properties of (Mn _{0.85} Fe _{0.15})Si along the critical trajectory
	5 minutes break	
10:30-11:00	Nicolas Martin Dr., LLB, Saclay, France	Liquid crystalline structures and elasticity in a cubic chiral helimagnet
11:00-11:15	Ekaterina Iashina Mrs., Petersburg Nuclear Physics Institute, Gatchina, Russia	Three-dimensional neutron polarization analysis of the small-angle scattering from helimagnetic fluctuations
11:15-11:45	Homma Yoshiya, Dr., IMR, Tohoku University, Japan	Magnetic Fluctuation and First-Order Transition in Trillium Lattice of EuPtSi Observed by ¹⁵¹ Eu Mossbauer Spectroscopy
11.45 – 12.15	Coffee break	
12.30-20.00	Excursion to the Museum – Island “Kizhi”	

Thursday. 11 July 2019

Session 6. Neutron scattering for non-collinear magnetism

Chairperson: **Isabelle Mirebeau**

9:30-10:00	Arsene Goukassov, Dr., LLB CEA-CNRS, Saclay, France	Polarized Neutrons studies of weak magnetization densities
10:00-10:30	Vladimir Hutanu, Dr., RWTH Aachen University, Institute of Crystallography, Germany	Determining the sign of DMI in MnCO ₃ by polarised neutron diffraction.

10:00-11:15	Yusuke Araki , Mr., The University of Tokyo, Japan	High-field optical study of metamagnetic transitions in a chiral polar magnet $\text{Ni}_2\text{InSbO}_6$
10:15-11:00	Kirill Pschenichnyi Mr., Petersburg Nuclear Physics Institute, Gatchina, Russia	Spin-wave stiffness of Dzyaloshinskii- Moriya helimagnets $\text{Fe}_{1-x}\text{Co}_x\text{Si}$ studied by small-angle neutron scattering
11.00– 11.30		Coffee break
11:30-12:00	Catherine Pappas Prof., TUDelft, Delft, Netherlands	Tilted conical phase and multiple skyrmionic phases in Cu_2OSeO_3
12:00-12:15	Mikhail Chuev , Mr., Valiev Institute of Physics and Technology of RAS, Russia	The Morin Transition and Dzyaloshinskii-Morya Effect in Hematite Nanoparticles
12:15-12:30	Miguel Prado , Mr., Instituto de Ciencia de Materiales de Aragón (ICMA), Spain	Non collinear magnetic phases in spinel MnCr_2O_4
12:30-13:00	Igor Zobkalo , Dr., Petersburg Nuclear Physics Institute, Gatchina, Russia	On the 4f-3d coupling in orthomanganites $\text{Dy}_{1-x}\text{Ho}_x\text{MnO}_3$
13.00 – 14.00		Lunch
Session 7. Thin films and surface effects in cubic ferromagnets without center of symmetry Chairman: Yoshihiko Togawa		
14:00-14:30	Sergey Maleyev , Prof. Dr., Petersburg Nuclear Physics Institute, Gatchina, Russia	Surface magnetic layer and magnetic field
14:30-15:00	Alexey Ognev , Dr., Far Eastern Federal University, Russia	Effect of focused ion beam irradiation on the interface DMI and magnetic anisotropy thin films
15:00-15:20	Oksana Koplak , Dr., IPCP RAS, Russia	Magnetic refrigeration by tuning of exchange spring, helix, fan in Ho/W films
15:20-15:40	Dmitriy Tatarskiy Dr., Institute for physics of microstructures RAS, Russia	Nanofabrication of Bloch and Néel skyrmions in Co/Pt multilayers
15:40-16:00	Ksenia Chichay Immanuel Kant Baltic Federal University, 236004, Kaliningrad, Russia	Effect of interplay of Dzyaloshinskii- Moria and dipolar interactions on internal skyrmion structure in magnetic mulilayers.

16.00 – 17.00

Poster session and Coffee break

17:00-17:30	Kapil Sharma Dr., Laboratory of Information Technology, JINR, Dubna, Russia.	«Dzyaloshinskii-Moriya interaction as an agent to free the bound entangled states »
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17:30-18:00	P. Kizhe Dr., Grad-Kitezh University, Grad-Kitezh, Russia	«Signs of life in terms of the fractal concept»
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19:00-22:00

Gala dinner

Friday 12 July 2019

9:30-12:00

Departure from Petrozavodsk

Poster session

(16:00 -18:00 Thursday 11 July 2019)

Anatoly Tsvyashchenko,
Dr., HPPI RAS, Russia

Quadrupole and magnetic hyperfine interaction arising on nuclei of ^{181}Ta and ^{111}Cd in noncentrosymmetric RhGe

Daria Skanchenko,
Ms., Petersburg Nuclear Physics Institute, Gatchina, Russia

Investigation of the magnetic structure of $\text{Rh}_{1-x}\text{Fe}_x\text{Ge}$ by small-angle neutron diffraction.

Denis Salamatin,
Dr., Vereshchagin Institute for High Pressure Physics, RAS, Moscow, Troitsk, Russia

Magnetic properties and Phase Separation in the noncentrosymmetric narrow band semiconductors $\text{Ru}_{1-x}\text{Co}_x\text{Ge}$ (B20), synthesized under high pressure

Alexander Ovsyanikov,
Mr., Petersburg Nuclear Physics Institute, Gatchina, Russia

Spin waves in the high-temperature phase in a rare-earth orthoferrite HoFeO_3

Okumura Shun,
Mr., The University of Tokyo, Japan

Numerical study of magnetic hedgehog lattices in itinerant electron systems

Viktor Timofeev,
Mr., Petersburg Nuclear Physics Institute, Gatchina, Russia

Comparative study of skyrmion crystal and triple helix states in non-centrosymmetric magnets