

Symposium Program

Monday, June 4

Oral Sessions

08.30-10.00	Registration	
10.15-10.30	Opening ceremony	
10.30-10.45	Presentation of IEEE Magnetics Society (by the IEEE fellow Andrei Slavin)	
10.45-11.45	Session 1	Magnetic excitations in topological matter
10.45-11.15	Dany Lachance-Quirion (invited)	Hybrid quantum systems with magnons
11.15-11.30	Petr Skirdkov	Spin pumping and probe in permalloy dots-topological insulator bilayers
11.30-11.45	Zukhra Gareeva	Low and high frequency dynamics of magnetic skyrmions in nanodots
11.45-12.15	Coffee-break	
12.15-13.00	Session 2	Magnonics-I
12.15-12.30	Yury Filimonov	Brillouin light scattering investigation of the spin wave beam focusing effect under excitation by curved transducer
12.30-12.45	Shang-Fan Lee	Simulation on angular dependent transmission of spin waves and the induced domain wall motions in perpendicular-magnetic-anisotropy materials
12.45-13.00	David Osuna Ruiz	Propagating Spiral Spin Waves in Magnetic Nano-patches
13.00-15.00	Lunch	
15.00-17.00	Session 3	Magnonics-II
15.00-15.15	Andrei Slavin	Current-induced magnetization dynamics in antiferromagnets: generation of THz-frequency signals
15.15-15.30	Sergey Nikitov	Magnonics- from microwave to terahertz
15.30-15.45	Pascal Frey	Propagation of spin waves in width-modulated magnonic crystals
15.45-16.00	Frank Heussner	Frequency-division multiplexing in magnonic logic networks based on caustic-like spin-wave beams
16.00-16.15	Farkhad Aliev	Broadband communication and information processing with confined magnon modes
16:15-16.30	Andrey Fraerman	Nonreciprocal spin waves propagation in curvilinear ferromagnetic nanowires
16.30-16.45	Yuri Khivintsev	Signal transmission enhancement in YIG network at spin wave resonance
16.45-17.15	Coffee-break	
17.15-18.30	Session 4	Magnetoacoustics
17.15-17.30	Valentin Besse	Theoretical description of phonon-magnon interactions at the nano-scale
17.30-17.45	Vladimir Vlasov	Magnetization switching of elliptical magnetic nanoparticle by ultrashort pulses of surface acoustic waves
17.45-18.00	Natalia Polzikova	Theoretical and experimental investigations of spin pumping via bulk acoustic waves in resonator with YIG/Pt
18.00-18.15	Aleksandr Andrienko	Observation of the Sample Elastic Eigenmode Excitation under Oblique Microwave Pumping of Magnetoelastic Waves in Hematite
18.15-18:30	Andrey Azovtsev	Spin waves and currents generated by travelling elastic waves in ferromagnetic heterostructures
18.45-20.00	Welcome party	

09.00-10.45	Session 5	Excitations in low-dimensional magnets
09.00-09.30	Mike Zhitomirsky (invited)	Exotic magnetic structures in frustrated magnets: from competing interactions to disorder induced jamming
09.30-09.45	Stanislav Nikitin	Quantum spin dynamics of quasi-1D Ising spin chains in an exotic longitudinal spin-density wave phase
09.45-10.00	Alexander Smirnov	Static vs. dynamic fluctuations in a triangular antiferromagnet: experiment
10.00-10.15	Yuriy Sakhratov	Magnetic structure of the quasi-two-dimensional antiferromagnet $\text{Rb}_{(1-x)}\text{Fe}_x(\text{MoO}_4)_2$ probed by ^{87}Rb NMR
10.15-10.30	Yulia Krasnikova	Relaxation of spin excitations in strong-leg spin ladder with non-magnetic doping
10:30-10:45	Alexander Moskvin	Unconventional features of the antiphase domain walls in the model $S=1$ (pseudo)spin 2D system
10.45-11.15	Coffee break	
11.15-13.00	Session 6	Magnetophotonics
11.15-11.45	Tatiana Murzina (invited)	Spectroscopic studies of planar Ag+Py magneto-plasmonic crystals
11.45-12.00	Mikhail Kostylev	Microwave to optical photon conversion by means of travelling-wave magnons in YIG films
12.00-12.15	Olga Borovkova	TMOKE in the Plasmonic Diluted Magnetic Semiconductor Nanostructures
12.15-12.30	Yan Sun	Magnetic and magneto-optical studies of low-dimensional materials
12.30-12.45	Leonid Kulik	Transport of optically pumped spin in magnetized 2D electron system
12.45-13.00	Presentation of NKT Photonics	
13.00-15.00	Lunch	
15.00-17.00	Session 7	Exotic magnetic phases
15.00-15.30	Yuri Bunkov (invited)	Spin superfluidity from ultralow to room temperature
15.30-16.00	Edouard Sonin (invited)	Spin superfluidity: superfluid ^3He , solids, spinor BEC
16.00-16.15	Kirill Povarov	Quantum criticality in DTNX at zero field and pressure
16.15-16.30	Timofey Soldatov	ESR of a doped quasi-1D $S = 1$ antiferromagnet $\text{NiCl}_2\text{-4SC}(\text{NH}_2)_2$
16.30-16.45	Nikolay Sluchanko	Anisotropy of magnetoresistance and magnetic H-T phase diagram of a cage-glass antiferromagnet $\text{Ho}_{0.8}\text{Lu}_{0.2}\text{B}_{12}$
16.45-17.00	Margarita Iakovleva	Spin dynamics in the $S = 1/2$ honeycomb lattice compound $\text{InCu}_{2/3}\text{V}_{1/3}\text{O}_3$ probed by magnetic resonance techniques
17.00-19.00	Poster session and refreshments	

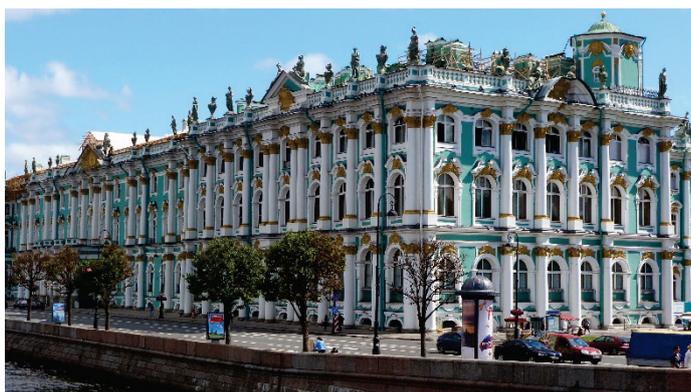
09.00-11.05	Session 8	Ultrafast magnetization dynamics
09.00-09.20	Andrei Kirilyuk Roman Pisarev	In memory of Jean-Yves Bigot and Eric Beaurepaire
09.20-09.50	Hermann Dürr (invited)	Magnon condensation and magnetic pattern formation far from equilibrium
09.50-10.20	Jan Lüning (invited)	Transport phenomena during laser induced magnetization dynamics
10.20-10.35	Alexander Yaroslavtsev	Ultrafast magnetization dynamics of FeRh
10:35-10:50	Andrei Kirilyuk	Ultrafast magnetization dynamics of the ferrimagnetic Heusler alloy Mn_2Ru_xGa
10:50-11:05	Johan Mentink	Quantum many-body dynamics of the Einstein-de Haas effect
11.05-11.30	Coffee break	

11.30-13.00	Session 9	Control of THz spin excitations in antiferromagnets
11.30-12.00	Alexey Kimel (invited)	THz magnonics: generation, propagation and detection of THz spins waves
12.00-12.15	Evgeny Mashkovich	Spin waves in magnets induced by intense THz pulses
12.15-12.30	Christian Tzschaschel	Temperature dependent spin damping in antiferromagnetic h-RMnO ₃
12.30-12.45	Ansar Safin	Nonlinear dynamics of the antiferromagnetic THz-frequency spintronic oscillator
12.45-13.00	Leonid Kotov	Ultrafast magnetic switching in antiferromagnetic nanoparticles excited by microwave pulses
13.00-15.00	Lunch	

15.00-18.30	Excursion to the State Hermitage Museum
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The State Hermitage Museum is a museum of art and culture. It was founded in 1764 when Empress Catherine the Great acquired an impressive collection of paintings from the Berlin merchant Johann Ernst Gotzkowsky.

The Museum has been open to the public since 1852. Its collections, of which only a small part is on permanent display, comprise over three million items, including the largest collection of paintings in the world. The collections occupy a complex of six historic buildings, including the Winter Palace, a former residence of Russian emperors.



19.00-22.00	Symposium dinner
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09.00-10.45	Session 10	Laser-induced spin waves
09.00-09.30	Anatoliy Zvezdin (invited)	Mechanism of ultrafast all-optical magnetization switching in iron garnet
09.30-10.00	Vladimir Belotelov (invited)	Optical excitation of magnetization dynamics in magnetophotonic structures by fs-laser pulses
10.00-10.15	Krzysztof Szerenos	Spectrally selective all-optical magnetic switching in a dielectric garnet
10.15-10.30	Mikhail Kozhaev	Optically excited ultrafast magnetization dynamics in Bi-substituted iron garnet with domain structure
10.30-10.45	Leonid Shelukhin	Ultrafast laser-induced quenching of perpendicular magnetic anisotropy in a magnetic tunnel junction structure
10.45-11.15	Coffee-break	

11.15-13.00	Session 11	Spin dynamics in nanostructures
11.15-11.45	Alexander Samardak (invited)	Brillouin light scattering spectroscopy of the interfacial Dzyaloshinskii-Moriya interaction in ultrathin magnetic films
11.45-12.00	Andrey Stashkevich	Understanding the interfacial nature of the Dzyaloshinskii-Moriya interaction and proximity induced magnetism
12.00-12.15	Arseny Savitsky	Twisted magnetization states and inhomogeneous resonance modes in an Fe/Gd ferrimagnetic multilayer
12.15-12.30	Victor Mironov	Ferromagnetic resonance of individual domain wall in V-shaped nanowire
12.30-12.45	Zhigao Sheng	High magnetic field visualization of antiferromagnetic phase dynamics
12.45-13.00	Yaroslav Beltukov	Magnetic excitations in ferromagnetic glass
13.00-15.00	Lunch	

15.00-16.00	Session 12	Low-dimensional and exotic magnetic structures
15:00-15:15	Valentin Irkhin	Magnetic phase diagrams in strongly correlated systems: Hartree-Fock and slave boson approaches
15.15-15.30	Nikolai Chtchelkatchev	Magnetism of B20-type transition-metal monogermanides: Experiment and <i>ab initio</i> calculations
15:30-15:45	Oleg Utesov	Polymorphism of low-temperature states in strained B20 helimagnets
15:45-16:00	Attila Szilva	Theory of non-collinear interactions beyond Heisenberg exchange: applications to bcc Fe
16:00-16:30	Coffee break	

16.30-18.30	Session 13	Spectroscopy of spin excitations
16.30-17.00	Andrei Sirenko (invited)	Optical spectroscopy of magnons, electromagnons, phonons, and crystal field excitations in orthoferrites RFeO ₃
17.00-17.15	Mikhail Prosnikov	Spin dynamics in the low-symmetry antiferromagnet NiWO ₄
17.15-17.30	Dávid Szaller	Exotic magnetoelectric excitations of the multiferroic SmFe ₃ (BO ₃) ₄
17.30-17.45	Koichi Takase	Unusual electronic state of the Mn 3 <i>d</i> in the layered Mott insulator (LaO)MnAs
17.45-18.00	Marcin Bialek	Spin-wave resonances in bismuth orthoferrite at high temperatures
18.00-18.30	Andrei Pimenov (invited)	Voltage control of magnetoelectric excitations
18.30-18.45	Closing remarks	

Section 1		Ultrafast spin dynamics and all-optical magnetization switching
1-1	A. Chernov	Influence of the laser pulse incidence angle on the phase of the optically excited magnetization precession
1-2	A. Fedyanin	Magnetization reversal in magnetic metal films by ultrashort laser pulses: a key role of Eddy currents
1-3	V. Gridnev	Hierarchy of Relaxation Processes in All-Optical Magnetization Switching in Ferrimagnets
1-4	N. Khokhlov	Spatial-time evolution of spin waves in thin galferol films
1-5	M. Kurkin	The new model of spin sublattices in antiferromagnets
1-6	N. Orlova	Mechanism of the reduction of spin sublattices after the electron excitation of femtosecond laser pump
1-7	V. Skidanov	Simple model for ultrafast optical demagnetization in transition metals
1-8	A. Telegin	Free-electron laser induced ultrafast dynamic of infrared magnetoabsorption in ferromagnetic spinel
1-9	Zongwei Ma	Evolution of multiple symmetries and magnetic phase structures in two-dimensional crystal $\text{Cr}_2\text{Ge}_2\text{Te}_6$
1-10	A. Zvezdin	Ultrafast spin dynamics in ferrimagnets with cubic anisotropy near the compensation temperature

Section 2		Spintronics
2-1	S. Aksenov	Spin-dependent nonequilibrium transport in a quadruple quantum-dot device
2-2	N. Bagraev	Quantum spin Faraday effect in silicon nanosandwiches
2-3	S. Baranovskii	Effect of magnetic field induced tuning of disorder on the magnetoresistance of paramagnetic dilute magnetic semiconductors
2-4	Iu. Iusipova	Switching and precession modes of magnetization dynamics in the MRAM cell in the magnetic field perpendicular to the anisotropy axis
2-5	V. Khromov	Spin interference in ultra-narrow silicon quantum wells
2-6	A. Lugovikh	Features of magnetic ordering in gallium arsenide with a delta layer of manganese of various concentrations
2-7	L. Lutsev	Spin waves and interaction between spin excitations and 2D electrons in interface layer in YIG / semiconductor heterostructures
2-8	G. Patrin	Magnetic Resonance in [(CoP)soft/NiP/(CoP)hard/NiP] _n Multilayer Film Structures
2-9	I. Pershin	The Fouriest Code: High-Performance Micromagnetic Simulation of Spintronic Materials and Devices
2-10	E. Shreder	Evolution of the Electronic Structure, Optical and Electrical Properties of Cobalt-Based Heusler Alloys
2-11	A. Svalov	Tailoring Gilbert damping by Gd doping in GMI multilayers
2-12	P. Usachev	Photoinduced Faraday rotation in EuTe
2-13	E. Vilkov	The kinetic equation for magnetization of nonequilibrium conduction electrons in magnetic junctions
2-14	E. Zipunova	The anisotropy model on a compensated interface of cubic ferromagnet-antiferromagnet with structure Cu_3Au (L12)

Section 3		Magnonics and propagation of spin waves
3-1	G. Abramova	The magnon mode in Raman spectra of the antiferromagnetic α -MnS
3-2	S. Bakharev	Caustic of the Spin Waves in Ferromagnets
3-3	E. Beginin	Brillouin light scattering study of layered YIG-Gallium Arsenide
3-4	E. Beginin	Spin wave steering in three-dimensional magnonic networks
3-5	V. Bessonov	Time dependence of total non-reflected waves in micro-patterned YIG films
3-6	V. Dubovoj	Spin wave filters based on thin YIG films for microwave applications
3-7	G. Dudko	Sensitivity of SW destructive interference in crossing waveguides to changes of applied in-plane magnetic field
3-8	A. Farhutdinov	Conventional magnon BEC in YIG
3-9	A. Golov	Numerical modelling of excitation of exchange magnons in nickel films by picosecond acoustic pulses
3-10	A. Grachev	Spin wave propagation in strain reconfigurable magnonic crystal
3-11	A. Grachev	Strain tuned spin-wave interference in orthogonal magnonic stripes
3-12	V. Gubanov	Spin-wave transport in the reconfigurable magnonic stripe with broken translational symmetry
3-13	A. Kaveev	Spin wave relaxation in YIG nanofilms on MgO/GaN(0001)
3-14	Yu. Khivintsev	Magnetostatic surface wave propagation in yttrium iron garnet film with nickel decoration
3-15	Yu. Khivintsev	Backward volume magnetostatic waves in subwavelength magnonic structures
3-16	A. Korovin	Spin waves in nanosized YIG films: effect of growth and annealing temperature
3-17	M. Kozhaev	Excitation of spin waves with controllable phase and wavelength by femtosecond laser pulses
3-18	V. Kozub	Electron drag in ferromagnetic structures separated by an insulating interface
3-19	A. Kreil	Control of magnon supercurrents by magnon density
3-20	I. Lyapilin	Spin Hall effect, as a generator and amplifier of spin-wave current in hybrid structures
3-21	M. Morozova	Nonlinear directional coupler based on coupled magnonic crystals: theory and experiment
3-22	M. Morozova	Tunable band gaps in composite multiferroic structures based on magnonic crystals and ferroelectric slab
3-23	M. Mruczkiewicz	MSSW in YIG film with leaky metasurface
3-24	Al. Nikitin	Thin-film multiferroic Mach-Zehnder type interferometer
3-25	An. Nikitin	Transmission characteristics of periodically modulated thin-film multiferroic structures with coplanar transmission line
3-26	S. Odintsov	Interconnection of magnonic units based on spin-wave coupler and bended magnetic stripe
3-27	F. Ogrin	3D FDTD-LLG modelling of magnetisation dynamics in thin film ferromagnetic structures
3-28	S. Osokin	Spin waves in finite arrays of discrete ferromagnetic pillars
3-29	E. Pavlov	Magnetostatic surface spin wave microwave pulse propagation in ferrite magnonic crystal with structural defect
3-30	E. Pavlov	Spin wave propagation in 2D magnonic crystal Ψ -junction line defect waveguides

Section 3		Magnonics and propagation of spin waves
3-31	D. Perov	Polarization of spin waves in metal layer
3-32	V. Poimanov	Scattering of spin waves by a layered structure with cells from a biaxial ferromagnet
3-33	K. Pshenichnyi	Spin waves stiffness in Dzyaloshinskii-Moriya helimagnet Cu_2OSeO_3
3-34	A. Sadovnikov	Lateral and vertical magnonic networks based on the adjacent insulator-based magnetic stripes and magnonic crystals
3-35	A. Sadovnikov	Spin wave steering along different types of magnonic bend
3-36	V. Sakharov	Transformation of spin wave wavelength using currents' array on a plain ferrite film
3-37	V. Sakharov	Filtration of magnetostatic waves in tapered YIG waveguides
3-38	P. Severin	Excitation of magnetic and elastic oscillations in ferrite plate including the spin reorientation transition region
3-39	V. Takhtamyshyan	Identification of backward volume and surface magnetostatic modes in a rectangular yttrium-iron-garnet film by high frequency magnetic field distributions
3-40	V. Teplov	Micromagnetic modeling of magnetization autoresonance in thin iron-yttrium garnet films with induced uniaxial anisotropy
3-41	V. Vitko	Theoretical model of nonlinear spin-wave optoelectronic active ring resonator
3-42	S. Vyatkina	Expansion of the magnetostatic wave beam excited by the finite length transducer in a tangentially magnetized ferrite film

Section 4		THz spectroscopy of spin excitations
4-1	K. Kuznetsov	Generation of terahertz pulses in the topological insulators $\text{Bi}_{2-x}\text{Sb}_x\text{Te}_{3-y}\text{Se}_y$
4-2	A. Mukhin	Terahertz optical activity near magnetoelectric excitations in rare-earth borates
4-3	D. Tatarskiy	Induced DMI in complex nanostructures with magnetic layers

Section 5		Antiferromagnets and exotic magnetic structures
5-1	N. Chtchelkatchev	Electronic, magnetic and phonon properties of the series $\text{Mn}_{1-x}\text{Rh}_x\text{Ge}$: Ab initio DFT study
5-2	R. Dubrovin	Dielectric behaviour of antiferromagnetic manganese fluoroperovskites AMnF_3 ($A = \text{Na}, \text{K}, \text{Rb}, \text{Cs}$)
5-3	V. Gilmudinov	Coexistence of superconductivity and spiral magnetism in high-temperature superconductors
5-4	V. Glazkov	Low-temperature antiferromagnetic resonance in quasi-2D magnet $\text{Cu}(en)(\text{H}_2\text{O})_2\text{SO}_4$
5-5	M. Gorji	Magnetic Domain Walls in FeRh Thin Film: In situ Lorentz TEM
5-6	S. Gotovko	ESR spectra of linarite $\text{PbCuSO}_4(\text{OH})_2$
5-7	V. Kats	Optically induced Faraday rotation in FeBO_3
5-9	T. Safin	Conventional magnon BEC in antiferromagnets with Suhl-Nakamura interaction
5-10	P. Semenikhin	Spontaneous magnetic ordering of the shallow impurities in the compensated semiconductors Ge and Si near of the phase insulator – metal transition
5-11	A. Sharevskaia	Spin waves in coupled easy - axis antiferromagnetic crystals
5-12	A. Sukhanov	Magnon spectrum of the non-collinear antiferromagnet Mn_3Ge
5-13	L. Svistov	Multiferroicity of CuCrO_2 tested by ESR
5-14	M. Timirgazin	Slave-boson treatment of large-U limit in Hubbard and t-U-J models
5-15	V. Ulitko	Phase diagrams of the 2D static spin-pseudospin model

Section 6		Spin excitations in low-dimensional and quantum magnets
6-1	Yu. Barabanenkov	Quantum fluctuations in radiation process from non-stationary spin flipping waves along atomic linear chain with free ends
6-2	S. Dickmann	Super-long-living spin excitations in a purely electronic quantum Hall system
6-3	G. Kurlyandskaya	Iron-FeNi-nickel nanoparticles obtained by the electric explosion of wire: what can we add to understanding FeNi phase diagram at nanoscale
6-4	M. Magnitskaya	Doping dependence of the gap structure and spin-fluctuation pairing in $\text{Ba}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$ superconductors
6-5	M. Magnitskaya	Electron and phonon properties of the high-pressure phase B20-RhGe from ab initio calculations
6-6	E. Sergeicheva	Magnetic phase diagram of a weakly ordered spin-1/2 chain compound Sr_2CuO_3
6-7	E. Skorokhodov	Magnetic resonance force microscopy of permalloy microstrip array
6-8	E. Vasinovich	Elementary excitations in quantum $S=1$ paramagnet
6-9	E. Vavilova	Quantum spin compounds $\text{Li}_3\text{Me}_2\text{SbO}_6$ (Me = Ni, Cu) with non-magnetic defects in 2D-hexagonal matrix: magnitoresonance study

Section 7		Magneto-photonics, phononics and plasmonics
7-1	M. Dianov	Modelling of hypersound excitation by rf pulses in three-layer film
7-2	E. Karashtin	Linear and non-linear chiral magneto-optical effects in non-collinear ferromagnets
7-3	R. Komarov	Faraday effect in magnetoplasmonic multilayers of metallic nanoparticles in iron-garnet film
7-4	A. Malakhovskii	Local properties of $\text{HoFe}_3(\text{BO}_3)_4$ single crystal in the excited 5F_5 states of Ho^{3+} ion at reorientation magnetic transitions
7-5	D. Pleshev	Features of dynamics of magnetic and elastic subsystems excited by a magnetization reversal in a ferrite plate
7-6	V. Vlasov	Modelling of magnetization oscillations' excitation by surface acoustic waves in metal films
7-7	V. Vlasov	Dispersion of spin magnetostatic surface waves in a medium with damping

Section 8		Magnetic topological structures
8-1	E.O. Burgos Parra	Time resolved imaging of coupled nano-contact spin transfer vortex oscillators
8-2	K. Denisov	Topological Hall effect in ferromagnetic thin films with magnetic skyrmions
8-3	E. Kurdyukova	Effective permeability spectra and magnetic structure of composite films in the HF range
8-4	V. Timofeev	Stereographic projection approach to dynamics of skyrmionic spin structures
8-5	A. Tsypilnikov	Magnon spectrum and magnetic susceptibility on skyrmion superlattice
8-6	V. Zverev	Turbulent dynamics of 3D topological structures in moving domain walls in the presence of random spatial inhomogeneties and thermal fluctuations