

UNIVERSITY
OF WARSAW



THE JOINT EUROPEAN MAGNETIC SYMPOSIA

HYBRID CONFERENCE

JULY 24-29, 2022

WARSAW, POLAND

CONFERENCE PROGRAMME



ORGANIZERS



Conference under the patronage of the Rector of the University of Warsaw

The organisers would like to thank the following companies for their support of the JEMS2022 Conference

PARTNERS



We would like to acknowledge the support provided by the US Army Research Office to help make this event possible.



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Welcome word

On behalf of the JEMS2022 committees we are pleased to welcome you to The Joint European Magnetic Symposia, the premiere and most comprehensive conference on magnetism in Europe.

As previously, the 2022 JEMS Conference covers a wide breadth of cutting-edge topics in magnetism and magnetic materials research, ranging from the fundamental to the applied. The topics cut across the entire field of magnetism, such as biomagnetism applications, chiral magnetism and skyrmions, multiferroics, strongly correlated systems, topological magnetic materials, ultrafast optical spintronics, and magnonics.

During the next few days almost 660 oral talks (including plenary, semi-plenary and invited) will be given and almost 150 posters will be presented. For this hybrid event, Participants will meet on-site at the conference venue (University of Warsaw old campus), as well as join us on-line. Our meeting however will not be limited to the scientific part. We will get together during several social events: Welcome Reception and Conference Dinner.

A sponsors' presentation will also constitute an important part of the event. Meet them at the exhibition space in the Old Library Building. We would like to thank the sponsors of the conference for their generous support. We are sure that the conference will provide a stimulating forum for sharing experiences and ideas, and establishing long-term collaborations.

At the end, we would like to thank each of you for attending our conference and sharing your expertise with the magnetism society. We believe that bringing the inspired people together in our meeting ensures the further development of this exciting field.

We wish you a nice and fruitful JEMS2022 Meeting!

JEMS2022 Committees

Committees

Program Committee

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Institute of Physics PAS, Warsaw, Poland

Diana C Leitão (co-chair),
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The Netherlands

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Warsaw, Poland

Katarzyna Gas,
Institute of Physics PAS,
Warsaw, Poland

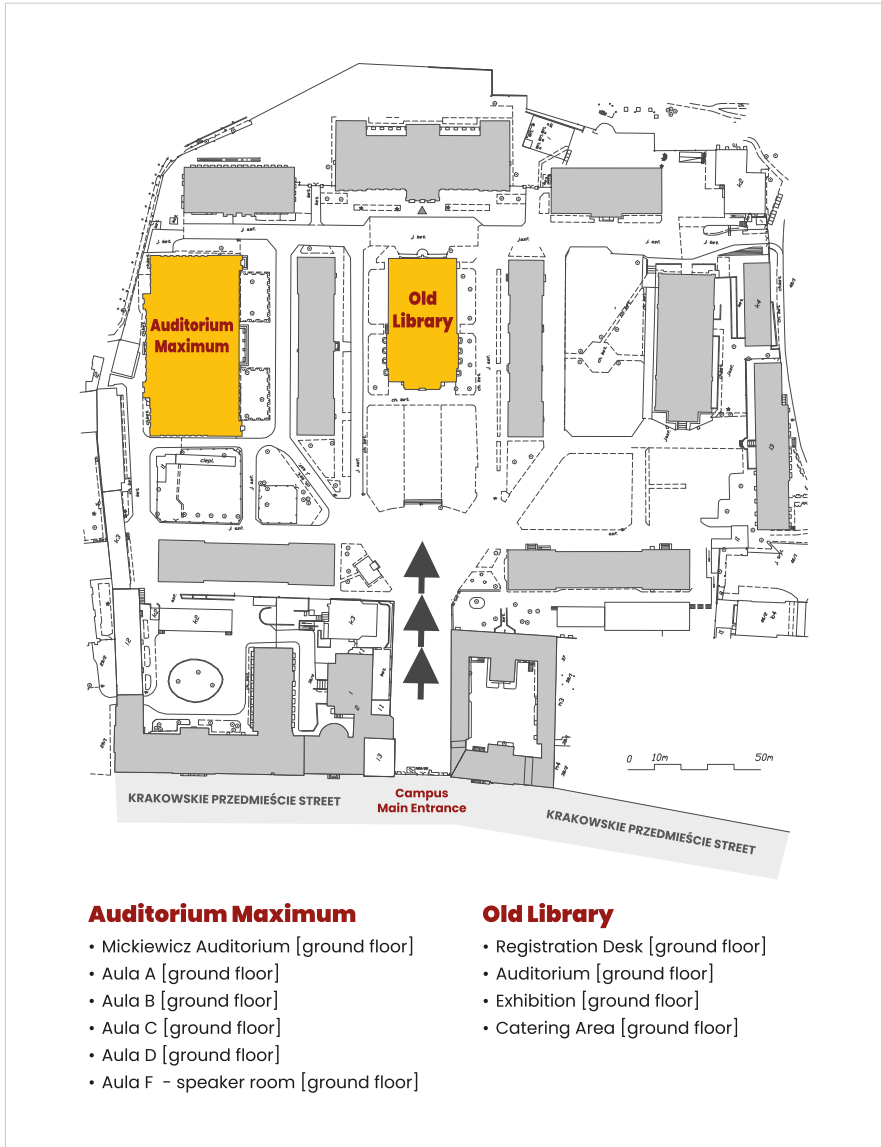
Przemysław Iwanowski,
Institute of Physics PAS,
Warsaw, Poland

Andrew Rushforth,
University of Nottingham,
UK

Jacek Szczytko,
University of Warsaw,
Poland

Marcin Wysocki,
Institute of Physics PAS,
Warsaw, Poland

Conference venue plan



Social events

Sunday, 24 July 2022 (free and open to all participants) | 17.30 – 19.30

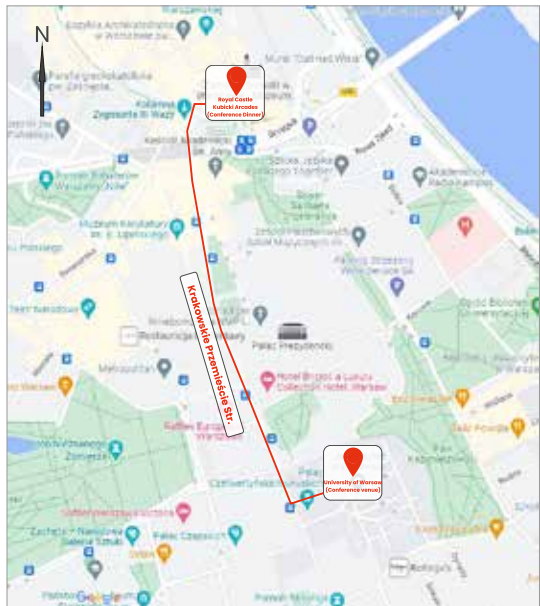
Welcome reception
University of Warsaw, Old Campus
Old Library Building, ground floor

Wednesday, 27 July 2022 (ticketed event) | 20.00 – 22.00 | entrance to the venue with aperitif from 19.30

Conference dinner (admission ticket needed; please bring your conference badge to the event as it will constitute an entry permit)
Venue: Royal Castle / Arkady Kubickiego
Address: Plac Zamkowy 4, 00-307 Warszawa



To reach the Conference Dinner venue, leave the University of Warsaw campus and head north through the Krakowskie Przedmieście Str. On the Castle Square (Plac Zamkowy) find a main gate to enter the Castle (Clock Tower). JEMS2022 representative will welcome you there.



Programme at a glance



JEMS2022 HYBRID CONFERENCE JULY 24—29, 2022 WARSAW, POLAND

	24.07.2022 Sunday	25.07.2022 Monday	26.07.2022 Tuesday	27.07.2022 Wednesday	28.07.2022 Thursday	29.07.2022 Friday	
08:00 - 08:15		Opening session	Plenary session	Plenary session (Mickiewicz)	Plenary session	Plenary session	08:00 - 08:15
08:15 - 08:30		Plenary session (Mickiewicz)	Plenary session	Plenary session	Plenary session	Plenary session	08:15 - 08:30
08:30 - 08:45							08:30 - 08:45
08:45 - 09:00							08:45 - 09:00
09:00 - 09:15		Short break	Short break	Short break	Short break	Short break	09:00 - 09:15
09:15 - 09:30		Semi-plenary session (Mickiewicz)	Semi-plenary session (Old Library)	Semi-plenary session (Mickiewicz)	Semi-plenary session (Old Library)	Semi-plenary session (Mickiewicz)	09:15 - 09:30
09:30 - 09:45							09:30 - 09:45
09:45 - 10:00							09:45 - 10:00
10:00 - 10:15		Coffee break	Coffee break	Coffee break	Coffee break	Coffee break	10:00 - 10:15
10:15 - 10:30							10:15 - 10:30
10:30 - 10:45							10:30 - 10:45
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21:30 - 21:45							21:30 - 21:45
21:45 - 22:00							21:45 - 22:00

Detailed programme

Sunday, 24 July 2022

From 15.30	Registration desk opens
17.30 – 19.30	Welcome reception

Monday, 25 July 2022

08.00 – 08.15	Opening session (Mickiewicz Auditorium / Auditorium Maximum)				
08.15 – 09.05	Plenary session 1 (Mickiewicz Auditorium / Auditorium Maximum) <i>Making Sense of the Quantum Anomalous Hall Effect, Laurens Molenkamp (Germany)</i>				
09.05 – 09.15	Short break				
09.15 – 09.55	Semi-plenary session 1 (Mickiewicz Auditorium / Auditorium Maximum) <i>Artificially-constructed chains of magnetic adatoms on superconducting 2H-NbSe₂, Katharina Franke (Germany)</i>		Semi-plenary session 2 (Old Library) <i>Femtomagnetism meets Spintronics, Bert Koopmans (The Netherlands)</i>		
09.55 – 10.15	Coffee break (Old Library Building / ground floor)				
10.15 – 12.15	S11.1 (Mickiewicz Auditorium / Auditorium Maximum)	S14.1 (Old Library)	S8.1 (Aula A / Auditorium Maximum)	S3.1 (Aula B / Auditorium Maximum)	S6.1 (Aula C / Auditorium Maximum)
10.15	<i>Semiconductor systems for optical studies of single magnetic ions</i> Piotr Kossacki (Invited)	<i>Suppression of the spin waves non-reciprocity due to interfacial Dzyaloshinskii–Moriya interaction by lateral confinement in magnetic nanostructures</i> Giovanni Carloti (Invited)	<i>Magnetocaloric materials and multifunctional properties of Mn–Fe–P–Si–B alloy</i> Fengxia Hu (Invited)	<i>Spin arrangements in the double perovskite LaSr_{1-x}Ca_xNiReO₆</i> Konstantinos Papadopoulos (Invited)	<i>Magnetic Ordering in van der Waals Halides with Weak Interlayer Coupling</i> Karel Carva (Invited)
10.45	<i>Ferromagnetic coupling in doped HgTe: a route for the quantum anomalous Hall effect</i> Giuseppe Cuono	<i>Magnon-magnon entanglement's detection and the phonon effects in antiferromagnetic structure</i> Yuefei Liu	<i>Evolution of magnetic properties of Mn–Fe–P–Si–B alloy: from bulk to microwire</i> Andrea Dzubinska	<i>Magnetic anisotropy in CoFe₂O₄ based nanocomposite</i> Sawssen Slimani	<i>Detection of magnetic domains in two dimensional Fe₃GeTe₂ using spin-polarized scanning tunneling microscopy</i> Namrata Bansal
11.00	<i>Spin-glass state and Almeida-Thouless line observation in Ge_{1-x}Y(Sn_xMn_y)Te multiferroics</i> Abdul Khaliq	<i>Nonlinear interactions between spin-wave modes probed by parametric excitation in YIG microstructures</i> Titiksha Srivastava	<i>High magnetic anisotropy and rotating magnetocaloric effect in Tb₃Ni single crystal</i> Aritz Herrero Hernandez	<i>Properties of systematically disordered Cr₂AlC thin films</i> Joao Salgado Cabaco	<i>Exchange bias in molecule/Fe₃GeTe₂ van der Waals heterostructures via spinterface effects</i> Junhyeon Jo
11.15	<i>Electronic structure of ferromagnetic Sn_{1-x}Mn_xTe thin films</i> Monika Zięba	<i>Using Propagating Spin Wave Spectroscopy to Probe Interfacial Phenomena Modified by an Electric Field</i> Adrien Petrillo	<i>Fully solid state magnetocaloric cooling: an efficient alternative solution for refrigeration</i> Daniel José Da Silva (Invited)	<i>Role of Geometric Frustration in a Weakly Disordered Checkerboard Lattice</i> Sergio Magalhaes	<i>van der Waals Ferromagnet Fe₃GeTe₂–Graphene Heterostructure Spin-Valve Devices at Room Temperature</i> Saroj Dash (Invited)
11.30	<i>Ferromagnetism and band structure engineering in the (Ga,Mn)As, Ga(Bi,As) and (Ga,Mn) (Bi,As) nanolayers</i> Oksana Yastrubchak	<i>No standing spin waves found in a rectangular permalloy microstrip under uniform magnetic excitation</i> Santa Pile		<i>Frustrated spin-1/2 J1–J2–J₁ Heisenberg magnet on a honeycomb bilayer: High-order coupled cluster study of its phase diagram</i> Raymond Bishop	

11.45	<i>Spin-structured multilayer THz emitters</i> Elias Kueny	<i>Nonreciprocal propagation of surface acoustic waves in a CoFeB/Ru/CoFeB trilayer synthetic antiferromagnet</i> Hiroki Matsumoto	<i>Rotating magnetocaloric effect in 2D molecular magnets</i> Piotr Konieczny	<i>Pulse High-Field Magnetization of frustrated FCC magnet RInCu₄</i> Takeshi Waki	<i>Proximity effects between Cr₂Te₃ vdW ferromagnet and 2D materials</i> Quentin Guillet
12.00	<i>Structural phase transition in Fe thin films: DFT study</i> Miroslaw Werwiński	<i>Current driven spin-wave emissions from magnetic vortex cores</i> Sabri Koraltan			
12.15 – 13.15	Lunch break				
13.15 – 15.15	S11.2 (Mickiewicz Auditorium / Auditorium Maximum)	S14.2 (Old Library)	S13.1 (Aula A / Auditorium Maximum)	S15.1 (Aula B / Auditorium Maximum)	S1.1 (Aula C / Auditorium Maximum)
13.15	<i>Voltage-driven ON-OFF switching of ferromagnetism in transition metal oxide and nitride films for neuromorphic applications</i> Jordi Sort (Invited)	<i>Direct imaging of spin-wave dynamics in a low-damping ferrimagnet close to antiferromagnetic compensation</i> Sebastian Wintz (Invited)	<i>Antiskyrmions, skyrmions, and mixed-topology skyrmions in crystals with S4 symmetry</i> Jan Masell (Invited)	<i>Nonlinear magnetotransport in topological insulators and other 2D materials</i> Anna Dyrdał (Invited)	<i>Magnetic Nanoparticles – Mediated Cancer Therapies and Magnetic Tissue Engineering</i> Claire Wilhelm (Invited)
13.45	<i>Voltage-controlled switching of magnetic anisotropy in ambipolar Mn₂CoAl/Pd bilayers</i> Yao Zhang	<i>Paramagnetic resonance in GGG at ultralow temperatures</i> Rosytslav Serha	<i>A micromagnetic theory of skyrmion lifetime in ultrathin ferromagnetic films</i> Anne Bernard-Mantel	<i>Role of the spin current induced generation of magnons in the current non-linear effects in ferromagnet/normal metal bilayers</i> Paul Noel	<i>Theoretical calibration factors of AC magnetometers for measuring magnetic fluid magnetization</i> Zoe Boekelheide
14.00	<i>Energy-efficient magnetoelectrochemical effect of La_{0.7}Sr_{0.3}MnO_{3-δ} via voltage-driven oxygen motion</i> Zhibo Zhao	<i>Non-reciprocal magnons in non-centrosymmetric MnSi</i> Robert Georgii	<i>Stochastic dynamics of skyrmion bubble by alternating magnetic fields</i> Minori Goto	<i>Spin Hall magnetoresistance effect from a disordered interface</i> Sara Catalano	<i>Influence of temperature on the relaxation signal of magnetic nanoparticles by magnetorelaxometry</i> Soudabeh Arsalani
14.15	<i>Towards electric control of magnetism: moving magnetic domains in magnetite / Ru(0001) nanostructures</i> Juan De la Figuera	<i>The impact of perpendicular anisotropy, Dzyaloshinskii–Moriya interaction and damping on spin wave dispersion and mode softening in thin magnetic films</i> Nikodem Leśniowski	<i>Controlled Localization of Magnetic Skyrmion Nucleation</i> Lisa-Marie Kern	<i>Spin Hall magnetoresistance and current density distribution in HM/FeCoB (HM=Ta,Pt) bilayers</i> Michaela Kuepferling	<i>Innovative dynamic detection for early diagnosis with a lab-on-a-chip based on “two-stage” giant magnetoresistance sensors</i> Maikane Deroo
14.30	<i>Origin of dual magnetoresistance behavior in the nanopatterned titanium/ titanium oxide/iron systems</i> Juliusz Chojenka	<i>Does the orbital angular momentum of light influence ultrafast demagnetization?</i> Eva Prinz	<i>Statistical analysis of superdiffusion of skyrmion bubbles</i> Malte Römer-Stumm	<i>Evidence of the interfacial asymmetric spin scattering at ferromagnet/platinum interfaces</i> Van Tuong Pham	<i>Recording activity from mammalian tissue via induced biomagnetic field using colour centers in diamond</i> Jim Webb

14.45	<i>Beating the limitation of the Néel temperature of FeO with antiferromagnetic proximity in FeO/CoO</i> Marcin Szpytma	<i>Ultrafast element- and depth-resolved magnetization dynamics probed by transverse magneto-optical Kerr effect spectroscopy in the soft x-ray range</i> Martin Hennecke	<i>Ferrimagnetic skyrmions in GdCo</i> João Sampaio (Invited)	<i>Tuning the spintronic properties of the ferroelectric Rashba semiconductor GeTe by alloying</i> Federico Fagiani	<i>Magnetic bucket brigade networks as rails for single cell transportation</i> Findan Block
15.00	<i>Atomic scale structure rearrangements in $Y_3Fe_5O_{12}$ epitaxial films on GGG(III) substrates explored by HR-STEM</i> Jose Santiso			<i>Detection of Magnon Currents in EuS</i> Montserrat Xochitl Aguilar Pujol	
15.15 – 15.45	Coffee break				
15.45 – 17.45	S4.1 (Mickiewicz Auditorium / Auditorium Maximum)	S9.1 (Old Library)	S13.2 (Aula A / Auditorium Maximum)	S15.2 (Aula B / Auditorium Maximum)	S12.1 (Aula C / Auditorium Maximum)
15.45	<i>Antiferromagnetic magnon pseudospin and Hanle effect</i> Akashdeep Kamra (Invited)	<i>Voltage-control of effective damping in spin Hall nano-oscillators</i> Victor H. González (Invited)	<i>Spin-orbit enabled all-electrical read-out of chiral spin-textures and impact of defects</i> Samir Lounis (Invited)	<i>Ferromagnet-induced spin-orbit torques</i> Kyung-Jin Lee (Invited)	<i>Single magnetic domain FeCoSiB multilayer-based magnetoelectric composites for biomagnetic field sensing</i> Dennis Seidler
16.00					<i>Nonergodic effects in the spin-glass CoCrFeMnNi high-entropy alloy: Thermoremanent magnetization and Thermal memory cell</i> Stanislav Vrtnik
16.15	<i>Long-distance magnon spin transport in antiferromagnetic insulators</i> Edgar Felipe Galindez-Ruales	<i>Micromagnetic Simulations of Spin-Orbit Torque Driven Domain Wall Based Memristor Devices</i> Elena Stetco	<i>Get skyrmions back on track: suppressing skyrmion Hall angle by material engineering or gate voltage</i> Charles-élie Fillion	<i>Spin orbit torque switching in coupled free layers systems</i> Vaishnavi Kateel	<i>Ultrafast photo-induced dynamics of multi states switching of magnetization in garnets</i> Tomasz Zalewski
16.30	<i>Towards antiferromagnetic dynamic solitons: terahertz Slonczewskii spin waves in antiferromagnetic spin-Hall nano-oscillators</i> Mohammad Hamdi	<i>Absence of Walker breakdown in the dynamics of chiral Néel domain walls driven by in-plane strain gradients</i> Mouad Fattouhi	<i>Magneto-ionic and electrostatic generation of non-volatile and volatile skyrmions in MgO/Mn₂CoAl/Pd thin films using ionic liquid gating</i> Simon Granville	<i>Theory of magnetic spin and orbital Hall and Nernst effects in bulk ferromagnets</i> Peter Oppeneer	<i>Scanning NV Magnetometry for Magnetic Memory Devices</i> Liza Zaper
16.45	<i>Magnetic properties of biphasic LaCr₃(BO₃)₄ crystal</i> Yuliya Savina	<i>Asymmetrically Interfaced Double Barrier Magnetic Tunnel Junctions for MRAM Devices</i> Maxwel Gama Monteiro	<i>Gate-Controlled Skyrmions in Magnetic Trilayer Tracks</i> Johanna Fischer	<i>Large spin-orbit torques on ferromagnetic layer from orbital currents</i> Sachin Krishnia	<i>z-Field Control Through Stack Design to Enable Field-Free Switching of VCMA-MRAM</i> Robert Carpenter

17.00	<i>Antiferromagnetic domain wall as a reconfigurable long Josephson junction</i> Roman Khymyn	<i>Comparative study of magnetic properties of Mn³⁺ magnetic clusters in GaN using classical and quantum mechanical approach</i> Yadhu Krishnan Edathumkandy	<i>Image-recognition-assisted characterization of metastable topological structures in chiral magnetic thin films</i> Cameron Rudderham	<i>Unidirectional orbital magnetoresistance in light metal/ferromagnet bilayers</i> Shilei Ding	<i>Tuning strain-induced anisotropy of soft ferromagnetic structures</i> Balram Singh
17.15	<i>Unveiling Oxidation and Spin State of Fe in Li_{1-x}Zn_xFeO₂</i> Priyanka Nehla	<i>Optimal protocol for switching of a perpendicular nanomagnet by means of magnetic field and spin-orbit torque</i> Grzegorz Kwiatkowski	<i>Creation of single chiral soliton states in monoaxial helimagnets</i> Santiago Osorio	<i>Field-free magnetization switching in sputtering grown epitaxial Tm₃Fe₅O₁₂ magnetic insulator thin films</i> Sajid Husain	<i>Voltage-driven giant modulation of magnetism in ferromagnetic metals with ultrahigh magnetocrystalline anisotropy</i> Xing-Long Ye
17.30	<i>Single crystal studies of NaMnAs, a rediscovered room temperature antiferromagnetic semiconductor</i> Jiří Volný	<i>Numerical model of harmonic Hall voltage detection for spin orbit torque devices</i> Sławomir Ziętek	<i>Emergence of zero-field non-synthetic single and catenated antiferromagnetic skyrmions in thin films</i> Amal Aldarawsheh	<i>Direct X-ray detection of the spin Hall effect in CuBi</i> Sandra Ruiz Gomez	<i>Engineering of Spin-Transfer-Torque Perpendicular Magnetic Tunnel Junctions at Cryogenic Temperatures with Very Low Switching Voltages</i> Pedro Brandao Veiga
17.45 – 18.15	Short break				
18.15 – 19.15	Poster session 1 (on-line)				
	Monday.P1	Monday.P2	Monday.P3	Monday.P4	Monday.P5

Tuesday, 26 July 2022

08.15 – 09.05	Plenary session 2 (Mickiewicz Auditorium / Auditorium Maximum) <i>Spin-orbit proximity in van der Waals heterostructures for logic devices, Felix Casanova (Spain)</i>					
09.05 – 09.15	Short break					
09.15 – 09.55	Semi-plenary session 3 (Mickiewicz Auditorium / Auditorium Maximum) <i>Modeling of spin-Seebeck and spin-Peltier effects for magnetic textures, Oksana Chubykalo-Fesenko (Spain)</i>			Semi-plenary session 4 (Old Library) <i>Emerging research landscape of altermagnetism, Tomas Jungwirth (Czech Republic)</i>		
09.55 – 10.15	Coffee break (Old Library Building / ground floor)					
10.15 – 12.15	S11.3 (Mickiewicz Auditorium / Auditorium Maximum)	S14.3 (Old Library)	S9.2 (Aula A / Auditorium Maximum)	S15.3 (Aula B / Auditorium Maximum)	S10.1 (Aula C / Auditorium Maximum)	S4.2 (Aula D / Auditorium Maximum)
10.15	<i>Strain and ferromagnetic proximity induced spin reorientation transition in antiferromagnetic NiO films</i> Weronika Janus (Invited)	<i>Ultrafast Optically Induced Ferromagnetic State in an Elemental Antiferromagnet</i> Wolfgang Kuch	<i>Inverse magnonics with SpinTorch</i> Adam Papp (Invited)	<i>Large spin orbit torque via magnetic spin Hall effect in the topological antiferromagnet</i> Kouta Kondou (Invited)	<i>Characterization of magnetic properties of thin films and near-surface regions by low-energy muon spin spectroscopy</i> Thomas Prokscha (Invited)	<i>Epitaxial strain tailoring of the antiferromagnetic properties in LaFeO₃ thin films</i> Vincent Polewczyk (Invited)
10.30		<i>Ultrafast metamagnetic phase transition in FeRh driven by non-equilibrium electron dynamics</i> Vojtěch Uhlíř				
10.45	<i>Effect of strain-induced anisotropy on magnetization dynamics in Y3Fe5O12 thin films grown on Y₃Al₅O₁₂</i> Adam Krysztofik	<i>Purely Precessional All-Optical Femtosecond Magnetic Switching</i> Luis Sánchez-Tejerina	<i>Micromagnetic simulation of soft magnetic composites utilizing periodic boundary conditions</i> Amil Ducevic	<i>Magneto thermal transport in non collinear antiferromagnetic thin films</i> Sebastian Beckert	<i>Many-Body Quantum Effects of Muons</i> Matjaž Gomilšek	<i>Role of substrate clamping on anisotropy and domain structure in the canted antiferromagnet α-Fe₂O₃</i> Angela Wittmann
11.00	<i>Control of magnetoelastic coupling in Ni/Fe multilayers using He⁺ ion irradiation</i> Giovanni Masciocchi	<i>Unravelling the Transient Depth Magnetic Profile During Ultrafast Demagnetization of an Iron Thin Film</i> Emmanuelle Jal	<i>Three-dimensional Magnetic Textures in Strongly Coupled Cylindrical Nanowires</i> John Fullerton	<i>Anisotropic magnetoresistance in systems with non-collinear magnetic order</i> Philipp Ritzinger	<i>Hardware, methodology and applications of backscatter Mossbauer spectroscopy with simultaneous X-ray and gamma detection</i> Jack O'Brien	<i>Impact of magnetoelastic coupling on antiferromagnetic spintronics</i> Sonka Reimers

11.15	<i>Ion implantation induced exchange bias in BCC Fe thin film</i> Sagar Sen	<i>Spin-lattice couplings and their effects in transition-metal magnetic crystals with ab-initio accuracy</i> Ivan Miranda	<i>Coercivity analysis of twin boundaries in arbitrary field direction by micromagnetic simulations</i> Markus Gusenbauer	<i>Anomalous Nernst effect in τ-MnAl thin films</i> Daniel Scheffler	<i>Phase detection using GMI in Ni_xFe_{1-x} Ga glass-coated microwires</i> Rastislav Varga	<i>Gradient magnetoelasticity: tailoring of antiferromagnetic textures</i> Olena Gomonyay
11.30	<i>Soft magnetic amorphous Co-Zr alloy by severe plastic deformation</i> Andrea Bachmaier	<i>Reliable all-optical switching in Tb/Co multilayers based tunnel junctions</i> David Salomoni	<i>Mode selective excitation of spin-waves utilizing spin-wave conversion</i> Takuya Taniguchi	<i>Spin transport as a probe of non-linear fluctuations at the spin glass transition in $Pd_{1-x}Ni_x$ alloys</i> Miina Leiviskä	<i>Magnetometry of nanocrystalline materials in controlled gas atmospheres at high temperatures</i> Thomas Veile	<i>False antiferromagnetic component in ferromagnetic $La_2Co_2Ge_3$ under pressure</i> Marcin Wysokinski
11.45	<i>Imprinting magnetic micropatterns through geometrical transformation</i> Volker Neu	<i>Ultrafast coherent all-optical switching of antiferromagnets</i> Tobias Dannegger	<i>Micromagnetic simulations of Microwave Assisted Switching in Hard/Soft phase nanowires</i> Ioannis Panagiotopoulos	<i>Inverse spin-Hall effect in GeSn</i> Federico Bottegoni	<i>Ultra-thin free standing graphene membranes for enhanced performances in spin detection</i> Luca Nesi	<i>Shape Anisotropy in Antiferromagnetic structures</i> Hendrik Meer (Invited)
12.00	<i>Influence of the buffer layer on the nanoscale architecture in NdFeB ultrathin films</i> Jimena Soler-Morala	<i>All-optical switching on the nanometer scale excited and probed with femtosecond extreme ultraviolet pulses</i> Kelvin Yao	<i>Thermal Agitation of Magnetization Dynamics Induced by Electric-field</i> Shun Kanai	<i>Effect of seed layer thickness on Ta crystalline phase and spin Hall angle</i> Sriram Kasilingam		
12.15 – 13.15	Lunch break					
13.15 – 15.15	S11.4 (Mickiewicz Auditorium / Auditorium Maximum)	S14.4 (Old Library)	S13.3 (Aula A / Auditorium Maximum)	S8.2 (Aula B / Auditorium Maximum)	S6.2 (Aula C / Auditorium Maximum)	S4.3 (Aula D / Auditorium Maximum)
13.15	<i>Disclosing the nature of asymmetric interface magnetism in Co/Pt multilayers</i> Sara Laureti (Invited)	<i>Terahertz spin and charge currents: Insights into ultrafast spintronics and novel terahertz photonic applications</i> Tom Seifert (Invited)	<i>Current-induced control of chiral magnetic textures in magnetic insulators</i> Saul Velez (Invited)	<i>Iron Nitride: a Non-Rare-Earth Containing Permanent Magnet</i> Francis Johnson (Invited)	<i>Electrical and thermal generation of spin currents by magnetic graphene</i> Talieh Ghiasi (Invited)	<i>Magnonic Hanle Effect in Easy-Plane Antiferromagnets</i> Matthias Opel (Invited)

13.45	<i>Influence of dusting layers on the magneto-ionic response of Ta/X/CoFeB/Y/MgO/HfO₂ thin film stacks</i> Tanvi Bhatnagar-Schöffmann (Invited)	<i>Spintronic detection of terahertz magnetic fields via Zeeman torque</i> Alexander Chekhov	<i>Electric field control of chiral magnetic textures in multilayer films with perpendicular magnetic anisotropy</i> Cristina Balan	<i>Fabrication and characterization of Sm-based ThMn12-type compounds for applications as permanent magnets</i> Andrés García Franco	<i>Spin and charge carrier dynamics at a CuPc/WSe2 heterostructure</i> Gregor Zinke	<i>Ferromagnetic resonance study of acoustic, optic and mixed excitations in Ru/Cr/Co and Ru/Co multilayers</i> Panagiota Ntetsika
14.00		<i>THz-light driven spin-lattice coupling in cobalt difluoride</i> Evgeny Mashkovich	<i>Current induced domain wall dynamics in chemical modulated nanowires</i> Laura Álvaro Gomez	<i>Formation of ThMn12-type phase in (Zr, Nd)0.4Ce0.6Fe10Si2 alloys and the role of Nd substitution</i> Mieszko Kolodziej	<i>Brightening of the dark excitons due to the proximity effect</i> Lucja Kipczak	<i>Current induced magnetization field free switching in exchange biased Pt(W)/Co/NiO heterostructures</i> Krzysztof Grochot
14.15	<i>Electronic structure and magneto-optical Kerr effect spectra of W/Co/Pt layered systems</i> Adam Bonda	<i>Effect of Cu doping on the emission of terahertz radiation from CoFeB/Pt_xCu_{2-x} spintronic thin films</i> Charlotte Bull	<i>Exchange anisotropy and a new spiral state in the insulating chiral magnet Cu₂OSeO₃</i> Victor Ukleev	<i>High Pressure Reactive Milling of Nd₂Fe₁₄B-based alloys</i> Imants Dirba	<i>Quantitative Magnetometry on Nanostructured MBE Grown 2D In-Plane Ferromagnet</i> Patrick Reiser	<i>XPEEM Imaging of Magneto-acoustic Waves at GHz Frequency</i> Muhammad Waqas Khaliq
14.30	<i>Complex spin structures of ultrathin Fe/Ir films on Re(0001)</i> Felix Nickel	<i>Cavity-mediated magnon-magnon coupling at 0.3 THz</i> Marcin Białek	<i>Over 1 km/s Current Induced Skyrmion Motion in Synthetic Antiferromagnet without Skyrmion Hall Effect</i> Van Tuong Pham	<i>In search for new rare earth free permanent magnets in CoFeTa system</i> Dominik Legut	<i>Van der Waals epitaxy of 2D ferromagnetic Cr_(1+δ)Te₂ nanolayers</i> Kinga Lasek	<i>Quenching of an antiferromagnet into high resistivity states using electrical or ultrashort optical pulses</i> Zdenek Kaspar
14.45	<i>Interplay of magnetic states and hyperfine fields of iron dimers on MgO(001)</i> Sufyan Shehada	<i>Inverse magneto-plasmonics for laser-induced spin dynamics</i> Ilya Razdolski	<i>Magnetic Skyrmions in Electrically Insulating Magnets</i> Aisha Aqeel (Invited)	<i>Nitrogenation study of Nd(Fe,Mo)₁₂ compounds produced by Strip Cast methods</i> Ryan Sedek	<i>Scarce ferromagnetic interactions in monolayers of MPS₃</i> Magdalena Birowska	<i>Exchange bias effects in Co/CoO coupled with molecular layers</i> Ilaria Bergenti
15.00	<i>Direct On-chip EMI Shielding Layer with Metallic/Magnetic Multilayer for sub-100 MHz frequency range</i> Akira Kikitsu			<i>Novel Processing of Nano-Composite Magnets for Improved Remanence and Coercivity</i> Lukas Schäfer	<i>Magnetotransport properties of TaAs layers grown by MBE on GaAs (001) substrates</i> Zuzanna Ogorzałek	<i>Spin-transfer torque in non-collinear antiferromagnetic junctions</i> Jakub Železný
15.15 – 15.45	Coffee break					

15.45 – 17.45	S11.5 (Mickiewicz Auditorium / Auditorium Maximum)	S3.2 (Old Library)	S13.4 (Aula A / Auditorium Maximum)	S8.3 (Aula B / Auditorium Maximum)	S17.1 (Aula C / Auditorium Maximum)	S7.1 (Aula D / Auditorium Maximum)
15.45	<i>Ultrathin ferrimagnetic GdFeCo films with very low damping</i> Lakhan Bainsla (Invited)	<i>Topological effects in different magnetic spin ice geometries</i> Ana Parente (Invited)	<i>Topological magnon band structure of emergent Landau levels in a skyrmion lattice</i> Tobias Weber (Invited)	<i>Developing Near Room-Temperature Magnetic Refrigerators: Lessons Learned and Future Challenges</i> Jader Barbosa Jr. (Invited)	Artificial Magnetic Domains Without Domain Walls in Rare Earth-Transition Metal Films Patterned by Ion Bombardment Piotr Kuświk (Invited)	<i>Magnetic molecular systems to tune 2D materials properties</i> Alicia Forment-Aliaga (Invited)
16.15	<i>Designing compensated Co/Gd ferrimagnets for advanced room temperature spintronic devices</i> Thomas Kools (Invited)	<i>Quantitative analysis of the magnetic field distribution in an artificial spin ice by off-axis electron holography</i> Teresa Weßels (Invited)	<i>Phase formations in skyrmion ensembles with anisotropic interaction</i> Daniel Schick	<i>Anomalous Nernst Effect in Polycrystalline MnBi</i> Alessandro Sola	<i>Low-temperature magnetic phase transition in TbAl₂(BO₃)₄ - quantum and classical aspects</i> Andrzej Szewczyk (Invited)	<i>Nanostructuring magnetic systems by means of a 2D Metalorganic Network</i> Fernando Bartolomé
16.30			<i>Emergent responses in magnetic ring arrays of different lattice arrangements for reservoir computing</i> Guru Venkat			<i>Anomalous Nernst effect on magnetic multilayers with perpendicular magnetic anisotropy</i> Agustina Asenjo
16.45	<i>A quantum-mechanical study of anomalous magneto-volumetric behavior of ferrimagnetic Ni₃₁Mn₂₅Sn₈ alloy</i> Martin Friák	<i>Magnetic defect-driven dynamics in artificial spin ice</i> Robert Puttock	<i>Observation of metastable skyrmion lattice in NdMn₂Ge₂ at room temperature</i> Samuel Treves	<i>Induction-heated magnetic nanoparticles for catalytic hydrogen production</i> Cathrine Frandsen	<i>Interplay between the two magnetic phases of La₂NiMnO₈ and their impact on the oxygen evolution reaction</i> Jasnamol Palakkal	<i>Magnetic superexchange controlled by light in the family of molecular photomagnets</i> Michał Magott
17.00	<i>Magnetic properties of FeGa/Kapton for flexible electronics</i> Gojanan Pradhan	<i>Ice regime and approximate of the low-energy physics of the F-model in a two-dimensional artificial vertex system</i> N. Rougemaille	<i>The Interplay between Skyrmions and Thermal Magnons</i> Markus Weißenhofer	<i>Magnetically Actuated Thermal Switch System: A Performance Evaluation</i> Vivian Andrade	<i>Antiphase Boundaries in Ni-Mn-Ga Single Crystal Exhibiting Magnetic Shape Memory Effects</i> Oleg Heczko	<i>Giant Spin Pumping at Ferromagnet (Permalloy) - Organic Semiconductor (Perylene diimide) Interface</i> Manoj Talluri
17.15	<i>Control of magnetic properties in ferrimagnetic GdFe and TbFe thin films by He⁺ and Ne⁺ irradiation</i> Michał Krupinski	<i>Magnetic-Field-Dependent Thermodynamic Properties of Square and Quadrupolar Artificial Spin Ice</i> Mateusz Goryca	<i>Domain wall automation for three-dimensional magnetic interconnectivity</i> Claire Donnelly	<i>Magnetocaloric Effect direct measurement through Time-Dependent Magnetometry</i> João H. Belo	<i>Measuring the magnetoelectric coupling of piezoelectric/magnetostrictive nanostructures using the anisotropic magnetoresistance effect</i> Anaïs Guerenneur	<i>[Co(NCS)₂(L)₂]_n spin chains: a new relaxation pathway observed for single crystal samples</i> Magdalena Ceglarska

17.30	<i>Size effect on All Optical Switching in GdFeCo</i> Gweha Danny		<i>Current- and Oersted-field-dynamics of a Bloch Point in cylindrical Ni nanowires</i> Jose Fernandez-Roldan	<i>Two terminal quantum dot hybrid system as a heat engine</i> Emil Siuda	<i>Effect of Nanoindentation on Martensitic Phase Transition of Heusler Films Studied by High-Resolution Imaging in Temperature</i> Francesca Casoli	<i>Spectroscopic and elastic properties of some Heusler alloys which were predicted to be Spin-Gapless-Semiconductors or Half-Metallic Ferromagnets</i> Jerzy Goraus
17.45 – 18.15	Short break					
18.15 – 19.15	Poster session 2 (on-line)					
	Tuesday.P1	Tuesday.P2	Tuesday.P3	Tuesday.P3	Tuesday.P4	

Wednesday, 27 July 2022

08.15 – 09.05	Plenary session 3 (Mickiewicz Auditorium / Auditorium Maximum) <i>Hard magnetic films: from material studies to micro-system applications, Nora Dempsey (France)</i>					
09.05 – 09.15	Short break					
09.15 – 09.55	Semi-plenary session 5 (Mickiewicz Auditorium / Auditorium Maximum) <i>Spintronics for Green Society, Hideo Ohno (Japan)</i>			Semi-plenary session 6 (Old Library) <i>Can photons generate magnetization in non-magnetic materials? - design of molecular photomagnets via the photochemical route, Dawid Pinkowicz (Poland)</i>		
09.55 – 10.15	Coffee break (Old Library Building / ground floor)					
10.15 – 12.15	S11.6 (Mickiewicz Auditorium / Auditorium Maximum)	S12.2 (Old Library)	S13.5 (Aula A / Auditorium Maximum)	S16.1 (Aula B / Auditorium Maximum)	S1.2 (Aula C / Auditorium Maximum)	S5.1 (Aula D / Auditorium Maximum)
10.15	<i>Asynchronous current-induced switching of rare-earth and transition-metal sublattices in ferrimagnetic alloys</i> Giacomo Sala (Invited)	<i>Tunnel magnetoresistive sensor architectures for 2D and 3D fields detection</i> Susana Cardoso (Invited)	<i>Spin-orbit induced phenomena at ferromagnet/oxide and ferromagnet/2D material interfaces from first principles</i> Fatima Ibrahim (Invited)	<i>Superexchange dominates in magnetic topological insulators</i> Cezary Śliwa (Invited)	<i>Magnetomechanical actuation of microdisks and magnetoelastic membranes used as bioreactor for pancreatic cells stimulation</i> Helene Joisten (Invited)	<i>Experimental Demonstration of Reservoir Computation using Emergent Domain Wall Dynamics in a Patterned Magnetic Substrate</i> Ian Vidamour (Invited)
10.45	<i>Nucleation and current-induced bubble structures motion in PMA multilayers</i> Jorge Marqués-Marchán	<i>Exchange-Bias Delta-E Effect Magnetic Field Sensors for Sensor Arrays</i> Benjamin Spetzler	<i>Direct observation of bulk-DMI-stabilized Néel-type domain walls in ferrimagnetic rare-earth transition-metal alloys</i> Daniel Metternich	<i>Interplay between magnetism and topology in correlated topological materials</i> Yixi Su	<i>Magnetic properties of Fe vortex nanodisks and nanowires for emerging biomedical applications</i> Celia Sousa	<i>Machine learning informing computational modelling of complex magnetic spin textures</i> Vanessa Nehruji
11.00	<i>Competition Between Interparticle Coupling and Demagnetizing Effects in Soft Magnetic Iron Composites</i> Samuel Dobák	<i>Magnetic Tunnel Junction with Symmetric Response for Sensitive Sensor using Magnetic Modulation</i> Samuel Manceau	<i>Magnetic domain evolution in W/Co/Pt ultrathin epitaxial layers approaching the superparamagnetic Co thickness regime</i> Piotr Mazalski	<i>Magnetic Properties of Intrinsic Magnetic Topological Insulators Mn(Bi,Sb)Te</i> Michael Wissmann	<i>Room-temperature synthesis of AuFe solid solution nanoparticles and their transformation to Au/Fe Janus nanostructures</i> Mariia Efremova	<i>Serial and Parallel Magnetic Tunnel Junction Configuration for RF applications and neuromorphic computing</i> Piotr Rzeszut

11.15	Weak ferromagnetism linked to the high-temperature spiral phase of YBaCuFeO ₅ Jike Lyu	Improved dynamical switching properties in Perpendicular Shape Anisotropy Magnetic Tunnel Junctions Nuno Caçoilo	Stabilizing skyrmions in Pt/Co/Tb multilayers with reduced magnetization Sougata Mallick	Spin-Orbit torques and magnetization switching in topological-insulator/2D-ferromagnet heterostructures: MBE-grown CrTe ₂ /Bi ₂ Te ₃ Nicholas Figueiredo-Prestes	Single-domain particle heating in a viscous fluid Santiago Helbig	Neuromorphic Spin-Wave Computing Jack Carter-Gartside (Invited)
11.30	Optimisation of perpendicular magnetic tunnel junction structures using STEM Meg Smith	Spin orbit torque enabled magnetic sensor with low offset and tunable sensitivity Sebastian Zeilinger	Facilitating Skyrmion Nucleation in Ir/Co/Pt Multilayers With Ga ⁺ Ion Irradiation Mark De Jong	Study on spin-orbit-torque-induced magnetization modulation using rectifying planar Hall effect Akinobu Yamaguchi	Factors affecting Magnetic Particle Imaging: Challenges and Solutions Paola Tiberto	
11.45	Flexible magnetic nanostructures: differentiated control of the magnetization Challab Nabil	Magnetic Sensors Based on Amorphous and Nano materials Pavel Ripka (Invited)	Non-collinear three-dimensional textures in magnetic multilayers: the emergence of skyrmionic cocoons Matthieu Grelier	The ferromagnetic topological insulator MnSb ₂ Te ₄ Oliver Rader (Invited)	Flexible and printed electronics: from interactive on-skin devices to bio/medical applications Denys Makarov (Invited)	Stochastic Computing and Machine Learning with Magnetic Domain Walls Alexander Welbourne
12.00	Noncollinear coupling of Co layers across RuCo spacer layers Erol Girt		Investigation of self-nucleated skyrmion states in the ferromagnetic/nonmagnetic multilayer dot Lullia Vetrova			
12.15 – 13.30	Lunch break					
13.30 – 15.00	EMA Awards Special Session (Mickiewicz Auditorium / Auditorium Maximum) Large antiskyrmions and small scalar spin chirality fluctuations, Jan Masell (Germany) Anomalous Hall responses in unconventional d-wave magnets, Libor Šmejkal (Germany)					
15.00 – 15.30	Coffee break					
15.30 – 16.30	Poster session 3 (on-line)					
	Wednesday.P1	Wednesday.P2	Wednesday.P3	Wednesday.P4	Wednesday.P5	
20.00 – 22.00	Conference dinner (ticketed event)					

Thursday, 28 July 2022

08.15 – 09.05	Plenary session 4 (Mickiewicz Auditorium / Auditorium Maximum) <i>From Spin-Orbitronics to Orbitronics – novel science and applications in memory & non-conventional computing, Mathias Kläui (Germany)</i>					
09.05 – 09.15	Short break					
09.15 – 09.55	Semi-plenary session 7 (Mickiewicz Auditorium / Auditorium Maximum) <i>Revealing three-dimensional spin textures, and their dynamics, with X-rays, Claire Donnelly (Germany)</i>			Semi-plenary session 8 (Old Library) <i>Absolute spin-valve effect in magnetic superconducting switches with spin-orbit coupling, Jason Robinson (United Kingdom)</i>		
09.55 – 10.15	Coffee break (Old Library Building / ground floor)					
10.15 – 12.15	S11.7 (Mickiewicz Auditorium / Auditorium Maximum)	S14.5 (Old Library)	S13.6 (Aula A / Auditorium Maximum)	S9.3 (Aula B / Auditorium Maximum)	S7.2 (Aula C / Auditorium Maximum)	S4.4 (Aula D / Auditorium Maximum)
10.15	<i>The exceptional magnetic and magnetotransport characteristics of thin film Heusler alloy Co_2MnGa – a room temperature Weyl ferromagnet</i> Simon Granville (Invited)	<i>Out-of-plane nanomagnonics for exchange spin waves</i> Qi Wang (Invited)	<i>3D domain wall motion memory with artificial ferromagnet</i> Teruo Ono (Invited)	<i>Forecasting the outcome of spintronic experiments with Neural Ordinary Differential Equations</i> Damien Querlioz (Invited)	<i>Lanthanide single-molecule magnets functionalized by cyanido transition metal complexes</i> Szymon Chorazy (Invited)	<i>Antiferromagnetic dynamics: dissipative and non-dissipative baths</i> Tim Ludwig (Invited)
10.45	<i>Current Induced Crystallisation in Heusler Alloy Films for Memory Potentiation in Neuromorphic Computation</i> Atsufumi Hirohata	<i>Field orientation dependent magnetization dynamics in sub 100 nm wide magnetic wires</i> Mahathi Kuchibhotla	<i>Current induced domain wall motion in $\text{Mn}_{4-x}\text{Ni}_x\text{N}$ benefited from the compensation at room temperature</i> Taro Komori	<i>Evidence of electron-phonon spin flips as the intrinsic mechanism for ultrafast demagnetization in 3d transition metals</i> Theodor Gripe	<i>Magnetism of vanadium and tungsten based polyoxometalates functionalized with phtalocyaninato lanthanide (Y,Yb,Dy) moieties</i> Piotr Kozłowski	<i>Compensation point in the ferrimagnetic nanoparticles</i> Paweł Sobieszczyk
11.00	<i>Impact of the Magnetic Subsystem on the Low-temperature Specific Heat of Metamagnetic Shape Memory Alloy</i> Anna Kosogor	<i>Steering spin waves in corrugated waveguides</i> Jan Klíma	<i>Coherent Correlation Imaging: Resolving fluctuating states of matter</i> Christopher Klose	<i>Interpretation ambiguity in FORC diagram</i> Leoni Breth	<i>Slow spin dynamics in Gd^{III}-based propeller-like qubit candidate and its structural analogues with other lanthanide ions</i> Gabriela Handzik	<i>An ab initio parameterised spin model of hematite</i> Tobias Dannegger
11.15	<i>Magnetic nanocrystalline CoCrFeNiGa_x ($x = 0.5, 1.0$) high entropy alloys by high energy ball milling</i> Natalia Shkodich	<i>Spin Hall driven spin-wave sources for magnonic conduits</i> David Alexander Breitbach	<i>Domain wall magnetic configuration of soft Py microstructures studied by magnetic X-ray tomography</i> Javier Hermosa	<i>Temperature dependence of the stochastic thermal magnetic field of magnetic nanoparticles</i> Katrijn Everaert	<i>Construction of thin film systems using solvatomagnetic coordination polymers</i> Magdalena Fitta	<i>Suppressing electrical switching of antiferromagnets with high magnetic fields</i> Casper Schippers

11.30	<i>Exchange-coupled collective magnetism of a two-phase single-crystalline nanocomposite FeCoCrMnAl high-entropy alloy</i> Darja Gačnik	<i>Excitation of leaky modes by obliquely incident spin wave beam onto magnonic Gires-Tournois interferometer and its impact on Goos-Hänchen effect for reflected beams</i> Pawel Gruszecki	<i>All-Optical Switchable Racetrack based on Compensated Co/Gd quadrayers</i> Pingzhi Li	<i>Gauged Micromagnetic Model of the Dzyaloshinskii-Moriya Interaction Induced by Symmetry Breaking at the Co/Pt Interface</i> Adriano Di Pietro	<i>Dynamical screening at the metal-molecule interfaces: a hindrance to molecular spintronic device development?</i> Sumanta Bhandary	<i>Antiferromagnetic Hysteresis above the Spin Flop Field</i> Michał Grzybowski
11.45	<i>Effect of transition metal doping on magnetic hardness of CeFe₂-based compounds</i> Justyn Snarski-Adamski	<i>Effect of the Dzyaloshinskii-Moriya interaction on the band diagram of one-dimensional magnonic crystals</i> Silvia Tacchi	<i>Skyrmion racetrack confinement by the edge</i> Yanis Sassi	<i>Micromagnetic study of response of superferromagnetic and superparamagnetic nanocomposites to high-frequency field</i> Andrzej Janutka	<i>Data-powered insights into single-ion magnetism: the hidden role of vibronic coupling in the effective barrier</i> Alejandro Gaita-Ariño (Invited)	<i>Hysteretic effects and magnetotransport of electrically switched CuMnAs</i> Jan Zubáč
12.00		<i>Non-reciprocal magnonic directional coupler</i> Andrii Chumak	<i>Magnetic imaging of domain walls in CoNiB nanotubes for 3D spintronics</i> Mahdi Jaber	<i>Mutual and symmetry-breaking magnetostatic interactions in hybrid structure with Néel-type skyrmion</i> Mateusz Zelent		<i>Molecular beam epitaxy of the half-Heusler antiferromagnet CuMnSb</i> Johannes Kleinlein
12.15 – 13.15	Lunch break					
13.15 – 15.15	S11.8 (Mickiewicz Auditorium / Auditorium Maximum)	S14.6 (Old Library)	S3.3 (Aula A / Auditorium Maximum)	S15.4 (Aula B / Auditorium Maximum)	S8.4 (Aula C / Auditorium Maximum)	S4.5 (Aula D / Auditorium Maximum)
13.15	<i>Chirality and magnetism – new phenomena</i> Lech Tomasz Baczewski (Invited)	<i>Higgs and Goldstone spin-wave modes in striped magnetic texture</i> Matthieu Bailleul (Invited)	<i>Thermally-induced magnetic order from glassiness in elemental neodymium</i> Benjamin Verlhac (Invited)	<i>Two-Dimensional Materials for Spin-Orbitronics</i> Marcos Guimarães (Invited)	<i>Designing Competitive High Entropy Alloys for Magnetocalorics</i> Jia Yan Law (Invited)	<i>Complex ground state, spin waves and field induced transitions of the noncollinear antiferromagnet Mn₅Si₃</i> Nikolaos Biniskos (Invited)
13.45	<i>Chemical and Magnetic order of FeRh nanoparticles deposited on BaTiO₃ (001) and SrTiO₃ (001)</i> Guillermo Alberto Herrera Huerta	<i>A new look at spin-wave modes in a ferromagnetic nanorod</i> Maciej Krawczyk	<i>π-orbital order coupled to the spin-1/2 pyrochlore lattice in alkali-sesquioxides</i> Denis Arçon	<i>Spin-charge interconversion in 2D transition metal diselenides</i> Khasan Abdukayumov	<i>Effect of Particle Size in Extruding Flexible Permanent Magnet Filaments from Tuned Composites for Additive Manufacturing</i> Ester M. Palmero	<i>Anisotropic spontaneous Hall effect in unconventional antiferromagnet Mn₅Si₃</i> Miina Leiviskä

14.00	<i>Magnetic domain wall pinning in cobalt ferrite microstructures</i> Sandra Ruiz-Gomez	<i>Dielectric nanoparticle enhanced Brillouin light scattering spectroscopy of spin waves</i> Ondřej Wojewoda	<i>Randomness-driven Spin Liquid in a Frustrated Antiferromagnet</i> Matjaž Gomilšek	<i>Autonomous parametric instability driven spintronic auto-oscillator for multi-mode generation</i> Abbass Hamadeh	<i>Additive manufacturing of magnetocaloric 3D structures: A cost-effective way for printing cellulose-based metallic structures</i> Bosco Rodriguez-Crespo	<i>Enhanced anomalous Hall effect in Cr modulation-doped Mn₃Sn thin films</i> Xin Chen
14.15	<i>Influence of antidote form on magnetic resonance response</i> Sergey Nedukh	<i>Experimental Observation of Spin-Wave Diffraction Phenomena</i> Christian Riedel	<i>Multi-ring patterns in the single pulse all-optical toggle switching and partial demagnetization of amorphous DyCo_x and TbCo_x</i> Zexiang Hu	<i>Spin-Charge Interconversion with KTaO₃ two-dimensional electron gas</i> Srijani Mallik (Invited)	<i>Investigation of the influence of printing parameters and post-processing conditions on the magnetic properties of an additive manufactured Fe-Cr-Co alloy</i> Siegfried Arneitz	<i>Anomalous Nernst effect of the spin-split antiferromagnet Mn₃Si₃</i> Antonin Badura
14.30	<i>Superparamagnetic particles for micro-inductor applications</i> Mathias Zambach	<i>Exceptional points controlling oscillation death in coupled spintronic nano-oscillators</i> Steffen Wittrock	<i>Fractional Excitation-induced Phonon Renormalization in α-RuCl₃</i> Adrian Merrit		<i>Magnetic properties of high induction metallic ribbons Fe₆₇Co₂₇B₆ prepared by continuous ultra-rapid annealing method</i> Przemyslaw Zackiewicz	<i>Bulk Hexagonal MnTe - a Room Temperature Antiferromagnet</i> Kacper Kluczyk
14.45	<i>Picosecond Optospintronic Tunnel Junctions for Non-volatile Photonic Memories</i> Luding Wang	<i>Dynamic interactions between edge and bulk modes in an antidot lattice with perpendicular magnetic anisotropy</i> Mathieu Moalic	<i>Putative spin-nematic phase in BaCdVO(PO₄)₂</i> Markos Skoulatos	<i>Influence of intermixing on spin-to-charge conversion in sputtered BiSe</i> Wonyoung Choi	<i>Sustainability through industrial recycling and advanced manufacturing of nanocrystalline ferrite permanent magnet material</i> Alberto Bollero	<i>Spontaneous anomalous Hall effect arising from antiparallel magnetic order in a semiconductor</i> Dominik Kriegner
15.00	<i>Synthesis and characterization of Fe₃O₄@MgO@CoFe₂O₄ core/shell/shell magnetic nanoparticles</i> Jorge Martín Nuñez	<i>Towards fast exchange magnonics: partially compensated Ga:YIG garnets</i> Khrystyna Levchenko		<i>Spin-to-charge conversion in highly resistive and sputtered Bi_{1-x}Se_{1-x} from all-electrical nanostructured devices</i> Isabel Arango	<i>The FeCoNiPdCu high-entropy alloy: Excellent magnetic softness arising from a nanocomposite structure</i> Primož Koželj	<i>Altermagnetism and magnetic groups with pseudoscalar electron spin</i> Ilija Turek
15.15 – 15.45	Coffee break					

15.45 – 17.45	S11.9 (Mickiewicz Auditorium / Auditorium Maximum)	S14.7 (Old Library)	S18.1 (Aula A / Auditorium Maximum)	S15.5 (Aula B / Auditorium Maximum)	S8.5 (Aula C / Auditorium Maximum)	S10.2 (Aula D / Auditorium Maximum)
15.45	<i>Controlled Self-Assembly and Study of Engineered Magnetic Nanostructures</i> Mehran Sedrpooshan (Invited)	<i>Three-dimensional nanoscale imaging of propagating spin waves via Time-Resolved X-ray Laminography</i> Edoardo Albisetti (Invited)	<i>Imaging topological defects in a non-collinear antiferromagnet</i> Aurore Finco (Invited)	<i>Electric field modulation of spin transport in semiconductors</i> Carlo Zucchetti (Invited)	<i>Designing rare earth materials for basic science and magnetic refrigeration</i> Yaroslav Mudryk (Invited)	<i>Application of High Sensitive AC Field Modulation GMR Sensor to Magnetic Field Microscope</i> Akira Kikitsu (Invited)
16.15	<i>Chemically modulated Fe-Ni cylindrical nanowires with asymmetric magnetic response</i> Claudia Fernández-González	<i>Nonlinear magnon-phonon processes in coherently driven microstructures</i> Philipp Pirro	<i>Driving and probing magnetic resonance of single atoms on a surface in a scanning tunneling microscope</i> Tom S. Seifert (Invited)	<i>Magnetoionic behaviour in Ta/Co₂₀Fe₄₀B₂₀/HfO₂ solid state vs ionic liquid</i> Liza Herrera Diez	<i>Magnetoelastic tuning with site-specific substitution in giant magnetocaloric Fe₂P- type system</i> Sagar Ghorai	<i>Revealing 3D magnetic textures in [Pt/Co/Cu] x15 multilayers by coherent X-ray imaging with 5 nm resolution</i> Riccardo Battistelli (Invited)
16.30	<i>Crystal quality assessment of highly Bi-doped electrodeposited Cu nanowires for spintronics applications</i> Alejandra Guedeja-Marron	<i>Modelling of magnetoelectric transducers for spin-wave generation</i> Daniele Narducci		<i>Gate-tuneable and chirality-dependent charge-to-spin conversion in Tellurium nanowires</i> Manuel Suárez-Rodríguez	<i>Arrested martensitic transformations in multicaloric all-d-metal Ni-Co-Mn-Ti Heusler alloys</i> Benedikt Beckmann	
16.45	<i>Fabrication of rare-earth free permanent magnets for MEMS applications: magnetophoresis assembly of Co nanorods</i> Ilona Lecerf	<i>Influencing spin waves with bistable nanomagnet patterns</i> Matthias Golibrzuch	<i>Millikelvin propagating spin-wave spectroscopy for quantum magnonics</i> Andrii Chumak	<i>Spin textures go ferroelectric: perspectives and applications in ferroelectric Rashba semiconductors</i> Luca Nessi	<i>Impact of F and S doping on (Mn,Fe)₂(P,Si) giant magnetocaloric materials</i> Fengqi Zhang	<i>A fast method to recover 3D magnetization of 2D structures and multilayers</i> Alicia Estela Herguedas-Alonso
17.00	<i>Laser powder bed fusion of (Pr,Nd)-Fe-Cu-B Permanent Magnets</i> Jianing Liu	<i>Lateral spin pumping in an assembly of embedded Fe₆₀Al₄₀ nanostructures</i> Tanja Strusch	<i>Unravelling the phonon-induced relaxation dynamics of the [VO(TPP)] molecular qudit with inelastic X-ray scattering</i> Elena Garlatti	<i>Voltage-induced Stoner instabilities and spin-polarized currents at the MgO/Fe interface resonant states</i> Piotr Graczyk	<i>Influence of Martensitic Configuration on Hysteretic Properties of Heusler Films Studied by Advanced Imaging in Temperature and Magnetic Field</i> Milad Takhsha	<i>High Frequency Sample Excitation at the ALBA-PEEM</i> Muhammad Waqas Khaliq
17.15	<i>Magnetic patterning by plasma oxidation of Co/Ni bilayers</i> Piotr Kuświk	<i>Presence of a sizable out-of-plane interaction in a stripe discommensurated 214-nickelate Pr_{3/2}Sr_{1/2}NiO₄ (ε = 0.4)</i> Avishek Maity	<i>Quantum Spintronics Energy Harvester</i> Mathieu Lamblin	<i>Lithium-ion battery technology for voltage control of perpendicular magnetization</i> Maria Ameziane	<i>Modifying magnetic interactions and hysteresis by introducing Mn in La(Fe,Si)₁₃</i> Benedikt Eggert	<i>Local magnetic probe microscope integrating magnetoresistive sensors</i> Kevin Dalla Francesca

17.30	<i>Effect of buffer and capping layers of Co/Ni-based thin film heterostructures: Towards sustainable flexible spintronics</i> Mariam Hassan	<i>Tuning interactions in reconfigurable kagome artificial spin ices for magnonics</i> Vinayak Shantaram Bhat	<i>Pure dephasing of magnonic quantum states</i> Huaiyang Yuan	<i>Magneto-ionic Reversibility in Annealed W/CoFeB/HfO₂</i> Rohit Pachat	<i>Tuning the magnetic properties of magnetocaloric La(Fe,Si)₁₃ using rare earth doping</i> Johanna Lill	<i>Magneto-optical detection of spin-orbit torque vector via first order Kerr effects</i> Claudio Gonzalez-Fuentes
17.45 – 18.15	Short break					
18.15 – 19.15	Poster session 4 (on-line)					
	Thursday.P1	Thursday.P2	Thursday.P3	Thursday.P4		
19.30 – 20.30	Gender Equality in Science Special Session <i>Reaching the goal with gender equality plans? How GEPs contribute to a reflexive gender equality policy,</i> Angela Wroblewski (Austria)					

Friday, 29 July 2022

08.15 – 09.05	Plenary session 5 (Mickiewicz Auditorium / Auditorium Maximum) <i>Domain Walls and Skyrmions: From Ferromagnets to Ferrimagnets, Geoffrey Beach (United States)</i>				
09.05 – 09.15	Short break				
09.15 – 09.55	Semi-plenary session 9 (Mickiewicz Auditorium / Auditorium Maximum) <i>Magnetic field detection with spintronics: state of the art and innovations, Myriam Pannetier Lecoeur (France)</i>		Semi-plenary session 10 (Old Library) <i>Ultrafast nonthermal all-optical switching of magnetization in dielectrics, Andrzej Stupakiewicz (Poland)</i>		
09.55 – 10.15	Coffee break (Old Library Building / ground floor)				
10.15 – 12.15	S15.6 (Mickiewicz Auditorium / Auditorium Maximum)	S14.8 (Old Library)	S2.1 (Aula A / Auditorium Maximum)	S16.2 (Aula B / Auditorium Maximum)	S17.2 (Aula C / Auditorium Maximum)
10.15	<i>Robust mutual synchronization of large spin hall nano-oscillator chains</i> Akash Kumar (Invited)	<i>Polarized phonons carry the missing angular momentum in femtosecond demagnetization</i> Hannah Lange (Invited)	<i>Evidence of Robust Half-Metallicity in Strained Manganite Films</i> Giovanni Vinai (Invited)	<i>Quantum oscillation studies of magnetic kagome metals</i> Linda Ye (Invited)	<i>(Super)conducting filaments in reduced SrTiO₃ local polarization and electronic properties</i> Gustav Bihlmayer (Invited)
10.45	<i>Bath-induced spin inertia</i> Tim Ludwig	<i>Coulomb Scattering Contribution to Ultrafast Spin Dynamics in a Ferromagnetic Model System: Precession and Relaxation Dynamics</i> Kai Leckron	<i>Effect of superconductivity on magnetic exchange interactions</i> Uriel A. Aceves Rodriguez	<i>Surface decorated Weyl semimetal: topological quantum Lifshitz transition</i> Ashutosh Wadge	<i>Multiferroicity and Magnetization Dynamics in Fe/BTO/LSMO Tunnel Junction</i> Witold Skowronski
11.00	<i>Qualitatively different injection locking behavior of distinctly different spin Hall nano-oscillator modes</i> Mona Rajabali	<i>Accelerating double pulse all-optical write/erase cycles in metallic ferrimagnets</i> Felix Steinbach	<i>Dynamical effects of correlated superconducting nanostructures</i> Tadeusz Domański	<i>Axion insulating phase in superlattices without inversion symmetry</i> Rajibul Islam	<i>Magnetic phase transitions in multiferroic perovskite solid solutions based on BiFeO₃</i> Erik Cizmar
11.15	<i>Study of Spin-Orbit Interactions and Multilevel Switching in Co/Pt/Co trilayer</i> Krzysztof Grochot	<i>Modeling ultrafast demagnetization and spin transport: the interplay of spin-polarized electrons and thermal magnons</i> Maarten Beens	<i>Interplay of excitonic correlations, quantum spin Hall effect and superconductivity in electron-hole bilayers</i> Tania Paul	<i>Berry phase effects in the layered topological metals</i> Wojciech Brzezicki	<i>Light-induced Magnetic Modifications in Ni/PMN-PT Multiferroic Heterostructure</i> Deepak Dagur

11.30	<i>Spin orbit torque magnetization dynamics and switching in heavy metal/ferromagnet multilayers with mixed anisotropies</i> Stanisław Łazarski	<i>Heat-conserving three-temperature model for ultrafast magnetisation dynamics simulations</i> Maryna Pankratova	<i>Point Contact Spectroscopy of Interfacial Superconductivity of PbTe/SnTe Layered System with Dislocation Grid</i> Paweł Sidorczak	<i>Hard magnet topological semimetals in XPt_3 compounds with the harmony of Berry curvature</i> Jacob Gayles	<i>Contribution of charge and strain coupling in artificial multiferroic Fe_3O_4/PMN-PT heterostructures</i> Patrick Schöffmann
11.45	<i>Tailoring the switching efficiency of magnetic tunnel junctions by the fieldlike spin-orbit torque</i> Viola Krizakova	<i>Role of electronic excitation, relaxation and transport processes for X-ray induced ultrafast demagnetization within magnetic multilayer systems</i> Konrad Kapcia	<i>Spin-dependent thermoelectric response of multi-terminal hybrid quantum dot-based device</i> Vrshali Sonar	<i>Giant valley Zeeman coupling in the NbS_2 surface layer of $V_{1/3}NbS_2$</i> Phil King (Invited)	<i>Search For the Single-ion Displacive-type Perovskite Multiferroics</i> Bogdan Dabrowski
12.00	<i>Chiral coupling between magnetic layers with orthogonal magnetization</i> Can Onur Avci	<i>Electron-Magnon Scattering Dynamics in a 2-Band Stoner Model</i> Félix Dusabirane	<i>Coulomb blockade in compressed $La_{1.952}Sr_{0.048}CuO_4$ thin films</i> Irina Zajcewa		<i>Electronic, charge and topological reconstructions at the oxide interfaces</i> Carmine Autieri
12.15 – 13.15	Lunch break				
13.15 – 15.15	S11.10 (Mickiewicz Auditorium / Auditorium Maximum)	S14.9 (Old Library)	S13.7 (Aula A / Auditorium Maximum)	S17.3 (Aula C / Auditorium Maximum)	
13.15	<i>Anatomy of magnetic anisotropy and Gilbert damping in layered systems</i> Marek Cinal (Invited)	<i>The topological interface modes in planar one-dimensional magnonic crystals</i> Jarostaw Klos (Invited)	<i>A potential platform for Antiferromagnetic Skyrmionics</i> Hariom Jani (Invited)	<i>Energy Landscape of Nanodisks with Dzyaloshinskii-Moriya Interaction and Perpendicular Magnetic Anisotropy</i> Chaves-O'Flynn (Invited)	
13.45	<i>Element specific magnetocrystalline anisotropy of Sm-Co thin films</i> Georgia Gkouzia	<i>Goos-Hänchen effect at Brillouin light scattering by a magnetostatic wave in the Damon-Eshbach configuration</i> Igor Lyubchanskii	<i>Diffusive motion of antiferromagnetically coupled skyrmions</i> Takaaki Dohi	<i>Quasi-bidimensional lattices of magnetic and electric dipolar moments in $EuAl_{12}O_{19}$</i> Gael Bastien (Invited)	
14.00	<i>Magnetic anisotropy and exchange bias in V_2O_5/Ni epitaxial layers</i> Kristina Ignatova	<i>Observation of Femtosecond Laser Comb Driven Magnetoelastic Modes</i> Avinash Kumar Chaurasiya	<i>3D topological charge of the Bloch point in a spherical magnetic nanoparticle</i> Konstantin Gusliyenko		
14.15	<i>Effect of bending strain on magnetic anisotropy in epitaxial ferrite thin films on mica</i> Darla Mare	<i>Magnetoelastic interactions between surface acoustic waves and spin waves in nanopatterned structure</i> Grzegorz Centala	<i>Screw dislocations in chiral magnets</i> Maria Azhar	<i>Mastering negative thermal expansion via tunable induced strain in $La(Fe,Si)_{13}$-based compounds</i> João Belo	
14.30	<i>Influence of heavy sputtering gas on perpendicular magnetic anisotropy and interlayer exchange coupling in Pt/Co/Ir synthetic antiferromagnets</i> Daniel Gopman	<i>Optical detection of magnon-phonon coupling using μFR-MOKE technique</i> Manuel Müller	<i>Brownian reservoir computing realized using geometrically confined skyrmions</i> Klaus Raab	<i>Material and microstructure design for a multicolor cooling cycle which exploits thermal hysteresis</i> Lukas Pfeuffer	

14.45	<i>Quantitative description of magnetic anisotropy in insulating GaN:Mn</i> Katarzyna Gas	<i>Optical Control of Spin Waves in YIG/Plasmonic Heterostructures</i> Nikolai Kuznetsov	<i>Bloch hopfion spin-wave spectra in ferromagnetic medium</i> Krzysztof Sobucki	<i>Impact of pressure on magnetic properties of compensated GdCrO₃ ferrimagnet</i> Andrzej Wiśniewski
15.00	<i>Spin orbital reorientation transitions induced by magnetic field</i> Dariusz Sztienkiel	<i>Magnonic and phononic modes in Ni₈₀Fe₂₀ array of antidots</i> Stéphane Chirol	<i>Nano-scale collinear multi-Q states driven by higher-order interactions</i> Mara Gutzeit	<i>Evolution of structural and magnetic properties in electron-doped Ruddlesden Popper based bilayer manganite Ca_{2-x}Nd_xMn₂O₇</i> Neenu Prasanna
15.15 – 15.45	Coffee break			
15.45 – 16.45	Closing session (Mickiewicz Auditorium / Auditorium Maximum)			

Special sessions programme

EMA AWARDS SPECIAL SESSION

**Wednesday | 27 July 2022 | 13.30 – 15.00 |
Mickiewicz Auditorium / Auditorium Maximum**

The European Magnetism Association (EMA) awards session followed by presentations from the 2021 and 2022 awardees.

GENDER EQUALITY IN SCIENCE

**Wednesday | 27 July 2022 | 19.30 – 20.30 |
Mickiewicz Auditorium / Auditorium Maximum**

A discussion with Dr. Angela Wroblewski on how Gender Equality Plans can contribute to support gender equality and structural change at an institutional level.

MEMORIAL LECTURES

Lectures in memory of late distinguished physicists in our field available at <https://jems2022.pl/memorial-lectures>

Speakers

PLENARY SPEAKERS

Geoffrey Beach, Massachusetts Institute of Technology, United States of America

Felix Casanova, CIC nanoGUNE, Spain

Nora Dempsey, University of Grenoble Alpes - Institut Néel, France

Mathias Kläui, University of Mainz, Germany

Laurens Molenkamp, University of Würzburg, Germany

SEMI-PLENARY SPEAKERS

Oksana Chubykalo-Fesenko, Materials Science Institute of Madrid, CSIC, Spain

Claire Donnelly, Max Planck Institute for Chemical Physics of Solids, Germany

Katharina J. Franke, Free University Berlin, Germany

Tomas Jungwirth, Academy of Science, Czech Republic

Bert Koopmans, Eindhoven University of Technology, The Netherlands

Hideo Ohno, Tohoku University, Japan

Myriam Pannetier Lecoœur, CEA-Saclay, France

Dawid Pinkowicz, Jagiellonian University, Poland

Jason Robinson, University of Cambridge, United Kingdom

Andrzej Stupakiewicz, University of Białystok, Poland

Posters

Poster presentations will be organized exclusively online via separate Zoom Rooms, where presenters will be able to discuss their posters with attending participants. In order to increase the visibility of the posters in the online form, each 60 minutes long poster session comprises of up to 20 minutes long introductory part followed by the main part. The introductory part aims at providing the presenting authors 2 minutes to introduce their work. Provided by the authors 2-slide teasers of their posters will be aggregated to form the first 20 minutes introductory part. The teasers will be displayed by the chairpersons, but presented live by the authors. After completing the introductory part the presenters will have about 40 minutes to present and discuss their main posters with attending participants in their separate online ZOOM breakout rooms, each dedicated to one poster only.

For onsite participants willing to connect to the poster session at the conference venue, all conference rooms at Auditorium Maximum and Old Library Buildings will be open. The audience has to use their own portable devices to connect to poster ZOOM breakout rooms.

The organizers do not provide any hardware to allow participation in the online poster session. While choosing a seating place within the conference venue, please allow for a sufficient distance from the other participants in order to avoid sound loop. **Using external headphones with microphone is required.**

Poster session 1 | Monday | 25 July 2022 | 18.15 – 19.15

Monday.P1

Title	Symposium	Presenter
Spin-1/2 antiferromagnetic XXZ chain $\text{BaCo}_2\text{V}_2\text{O}_8$ in a transverse external magnetic field – dispersion of E8 particles	3	Konrad Puzniak
Ultrafast Emergence of Ferromagnetism in Antiferromagnetic FeRh in High Magnetic Fields	4	Irina Dolgikh
In-situ electrically and thermally controlled magnetic imaging of metamagnetic FeRh in transmission electron microscope	4	Oleksii Zadorozhnii
Substrate dependence of THz emission from epitaxial-NiO/Pt heterostructures	14	Rekha Agarwal
Spin wave dynamics as a metrological archetype for topologically protected spin structures (TSS)	14	Nimisha Arora
HAMR Switching Efficiency in Coreshell $\text{LiO}/\text{Al}-\text{FePt}$ Grain	12	Thanh Binh Nguyen
Offset free magnetic sensing principle and the role of the spin-orbit torque coefficients	12	Joshua M. Salazar-Mejia
Magnetic noise reduction strategies in magnetoresistive sensors for improved detection limits	12	Myriam Pannetier-Lecoeur

Monday.P2

Title	Symposium	Presenter
Optical microscopy of antiferromagnetic and ferromagnetic domains in FeRh thin films	11	Jon Ander Arregi
Magnetron sputtered epitaxial NiAl seed layer on Ge for enhanced VCMA effect.	11	Mohamed Ben Chroud
Correlation of magnetoelastic interactions and magnetic damping in thin $\text{Co}_2\text{Fe}_{0.4}\text{Mn}_{0.6}\text{Si}$ and $\text{Co}_2\text{FeGa}_{0.5}\text{Ge}_{0.5}$ magnetic layers	11	Oleksandr Chumak
Magnetic properties of Mn_3Ga , calculated from first principles and mappend onto an effective spin Hamiltonian for atomistic spin dynamics simulations	11	Umit Daglum
Analysis of the dysprosium M_5 circularly polarized X ray absorption spectrum to detect magnetically uncoupled rare earth atoms to TM in TM-RE amorphous alloys	11	Javier Díaz
Colossal enhancement of the coercivity in thin Co films interfaced with molecules	11	Mattia Benini
Investigation and optimisation of magnetic properties of Ga-doped τ -MnAl	11	Elizabeth Davis-Fowell
Ferromagnetic resonance in Fe_3O_4 nanoparticles in combination with ligands	11	Kateryna Sova

Monday.P3

Title	Symposium	Presenter
Low temperature magnetic transition and spin-lattice coupling in ϵ -Fe ₂ O ₃ epitaxial thin films	17	Nico Dix
Effect of half substitution with nickel for magnesium on the magnetic properties of Y-type Ba _{0.5} Sr _{1.5} NiMgFe ₁₂ O ₂₂ hexaferrite synthesized by citric acid sol-gel auto-combustion	17	Borislava Geogjeva
Magnetism in two-dimensional CrTe ₂	6	Nihad AbuAwwad
Ferromagnetic resonance study of 2D-SnS/Ni ₈₀ Fe ₂₀ heterostructures	6	Pankhuri Gupta
FORC analysis in arrays of interacting nanodots	9	Alejandro Rivelles
Local mapping of the magnetic response of materials.	10	Wanissa Benmessaoud
Microspectroscopy of Magnetic Nanostructures with Soft X-Ray Ptychography	10	Tim A. Butcher
Advanced modeling of the Torque Motor magnetic circuit	10	Wojciech Plucinski
In Situ Compensation Methods for Precise Integral Magnetometry of Miniscule Powder Specimens and Thin Layers (2D) on Bulky Substrates	10	Katarzyna Gas

Monday.P4

Title	Symposium	Presenter
Anomalous slow spin relaxation in [Gd ₂ (H ₂ O) ₆ (C ₂ O ₄) ₃]-2.5H ₂ O complex induced by magnetic field.	7	Anastasiia Doroshenko
Realization of low-dimensional magnetism in zeolitic imidazolate frameworks	7	Lilija Kotvytska
Spin properties of high-spin ground state, 12-metallacrown-4 complexes on Au(III) investigated by inelastic tunneling spectroscopy	7	Robert Ranecki
Reducing the temperature of nanostrips with a coating layer	15	Rodrigo Guedas Garcia
Spin zero effect in nonmagnetic centrosymmetric dipnictides TaAs ₂	15	Shahin Alam
Bilinear Magnetoresistance and Nonlinear Planar Hall Effect in Topological Insulators with Spin-Orbital Impurities	15	Kateryna Boboshko
Electron - Electron Repulsion Effect on Spin Mixing Conductance of Metallic Ferromagnet and Heavy Metal Interface	15	Adam Cahaya
Spin-transfer torque induced dynamics in dual free layer p-MTJ	15	Louis Farcis

Monday.P5

Title	Symposium	Presenter
Spin transport properties in multilayer including Pt and NiO layers	16	Akinobu Yamaguchi
Magnetotransport in Ferromagnetic Topological Crystalline Insulator Sn1-xMnxTe Thin Films	16	Aleksandr Kazakov
Topological Kagome ferromagnet Fe ₃ Sn ₂ grown on Si-SiO ₂ substrates using Pt seed layer.	16	Kacho Imtiaz Ali Khan
Increasing superconducting transition temperature of Heusler ferromagnetic superconductor Ni ₂ NbSn	2	Samuel Nalevanko
Magnetism, structure and magnetocaloric properties of Mn ₃ Sn _{1-x} Zn _x C antiperovskite carbide	8	Anika Kiecana
Rear-earth-based magnetocaloric composites for magnetic refrigerators systems	8	Karolina Kowalska
Optimization in Room Temperature Magnetocaloric Materials (MnFe) _{1.9} (PSi) Fe-Rich Compounds	8	H Hanggai
A computer assisted search for the novel magnetocaloric materials	8	Ivan Batashev
Effect of the shear cutting parameters on the magnetic behavior of Fe-Si electrical steel	8	Ivan Petryshynets

Poster session 2 | Tuesday | 26 July 2022 | 18.15 – 19.15

Tuesday.P1

Title	Symposium	Presenter
A ferrofluid based on Fe-Cr-Nb-B magnetic particles for biomedical application	1	Anca Emanuela Minuti
Pseudogap and excess conductivity in $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ single crystals under electron irradiation	2	Liudmyla Omelchenko
Correlation between As-S nanocluster structures and low-temperature anomalies in amorphous solids	3	Pavlo Baloh
Control of the magnetization in ferromagnetic rings using ferromagnetic nanoelement	3	Uladzislau Makartsou
Parametric amplification of spin waves by surface acoustic waves	14	Abbass Hamadeh
Spin-wave propagation and interference in microscopic YIG waveguides with submicron magnonic crystals	14	Nikolai Kuznetsov
Tunable NiFe Multilayers for High Frequency Applications	14	Matthew McMaster
Giant Rashba spin-orbit torque in atomically thin metallic Pt Co AlPt multilayers	15	Sachin Krishnia
Nonlinear Hall effect induced by Berry curvature dipole in a two-dimensional system with k-cubed form of Rashba spin-orbit interaction	15	Anna Krzyżewska

Tuesday.P2

Title	Symposium	Presenter
The 4×4 transfer matrix method: a flexible and computationally efficient tool for exploring a system's surface magnon polaritons	11	Nathan Hale
A High Throughput Study of Hard Magnetic CeCo_5 -based Thin Films	11	Yuan Hong
Stability of MnAl-C magnet alloys in the presence of water	11	Florian Jürries
Crystal field model simulations of magnetic response of pairs, triplets and quartets of Mn^{3+} ions in GaN	11	Dariusz Sztenkiel
Capping layer influence on magnetic characteristics evolution in cobalt nanofilms	11	Yuliia Veretennikova
Exchange spring and exchange bias effects in the bulk Heusler Ni_2MnSn -based alloys	11	Jiří Kaštil
Chiral zero sound – a new mechanism for heat conduction in Weyl semimetal NbP	16	Pardeep Kuma Tanwar
Numerical model of current induced magnetisation spin-orbit torque switching	9	Jakub Mojsiejuk

Tuesday.P3

Title	Symposium	Presenter
Defect-driven magnetic properties of PZT single crystals	17	Iwona Lazar
MAELAS: MAGneto-ELAStic properties calculation via computational high-throughput approach	17	Dominik Legut
Thermal Equilibrium Compositions of Divalent Cation Substituted W-type Ferrites	8	Nakai Shinji
Influence of the temperature on electro-magnetic properties of hybrid SMC material	8	Sviatoslav Vovk
DNS - diffuse neutron scattering spectrometer at MLZ	10	Thomas Mueller
Induction magnetometer with micro-emu sensitivity	10	Claudio Gonzalez-Fuentes
Colossal magnetoresistance (CMR) and Density functional theory in $\text{La}_{0.4}\text{Ag}_{0.2}\text{Ca}_{0.4}\text{MnO}_3$ polycrystal	7	Sawssen Slimani
Giant and tunneling magnetoresistance in unconventional collinear antiferromagnets with nonrelativistic spin-momentum coupling	4	Anna Hellenes

Tuesday.P4

Title	Symposium	Presenter
Stability of antiskyrmions and elliptical Bloch skyrmions in a D2d system	13	Jagannath Jena
Magnetic configurations in $\text{Fe}_{32}\text{Co}_{68}$ core-shell nanostructures with hexagonal cross-section	13	Anastasiia Korniienko
Response of the chiral soliton lattice to spin polarized currents	13	Santiago Osorio
Ionic Liquid Gating Control of Magnetic Anisotropy in Magnetic Tunneling Junction Stacks for Voltage Tunable Magnetoresistive Sensor	12	Susant Acharya
Bias voltage dependence of sensitivity in tunneling magnetoresistance sensors with voltage controlled magnetic anisotropy	12	Łukasz Fuśnik
Spin-dependent interfacial band structure and charge transfer phenomena at the C_{60} /graphene interface on Ni(111)	6	Ralf Hemm
Magnetism in van der Waals materials	6	Stefan Stagraczyński
Voltage Controlled Superparamagnetic Ensembles for Low Power Reservoir Computing	5	Alexander Welbourne

Poster session 3 | Wednesday | 27 July 2022 | 17.15 – 18.15

Wednesday.P1

Title	Symposium	Presenter
Study of the spin-1/2 antiferromagnetic XXZ chain $\text{SrCo}_2\text{V}_2\text{O}_8$ in a transverse external magnetic field	3	Konrad Puzniak
Disorder driven cluster glass state in a geometrically frustrated hexagonal perovskite	3	Shruti Chakravarty
Magnetism and growth of a Mn monolayer on Ir (111) investigated by SP STM	4	Arturo Rodríguez Sota
Resistance of atomically sharp domain walls in CuMnAs from first principles	4	Maria Stamenova
Magneto-mechanical properties of thin films on stretchable substrate measured by in situ MOKE	17	Hatem Ben MAHMOUD
Phase transition, hidden order and magnetic structure of complex scheelites	17	Matilde Saura-Múzquiz
Spin-mixed states in non-collinear magnets	14	Danny Thonig
Electrical detection of high frequency magnetization dynamics in coupled Co/Ru/Co trilayers	14	Tomasz Stobiecki

Wednesday.P2

Title	Symposium	Presenter
Wafer-level Integrated Hard Micromagnets for MEMS Applications	11	Mani Teja Bodduluri
Study of the magnetic interactions in FeNi nanowires through coercivity angular measurements and FORC analysis	11	Alonso J. Campos-Hernandez
Vortex chirality observation in trilayer disks of Fe/Al/Co using X ray resonant magnetic scattering	11	Javier Díaz
Huge Dzyaloshinskii-Moriya interactions in Re/Co[n]/Pt thin films	11	Amar Fakhredine
Experimental Results and Numerical Calculation of Co-Tb Distribution from Magnetron Co-Sputtering Deposition with a Composition Gradient	11	Łukasz Frąckowiak
An ab initio study of antiphase boundaries in ferromagnetic B2-phase Fe_2CoAl alloy	11	Martin Friák
^{55}Mn NMR investigations on Mn_2GaC nanolaminated thin film	11	Jaydeb Dey
In-depth modification in Co thin films induced by the interfacing with molecular layers detected by Zero-Field NMR	11	Mattia Benini

Wednesday.P3

Title	Symposium	Presenter
Current-induced interlayer DMI in synthetic antiferromagnets	15	Fabian Kammerbauer
FMR and thermal spin pumping enhanced by perpendicular anisotropy in YIG/Pt bilayers	15	Lara Solis
Intrinsic spin Hall effect in Nb-based A15 compounds	15	Ghulam Hussain
Topological transport properties of ex-sotic van-der-Waals structures	15	Izabella Wojciechowska
Thermal scanning probe lithography as a technique for fabrication of non-local spin	15	Alexander Wright
Multifunctional Fe Au nanostructures synthesized by Laser Ablation in Liquids	11	Célia T Sousa
Ni ₂ FeZ (Z = Ga, In, Tl) Heusler alloy nanowires prepared via electrodeposition	11	Michal Varga
Valence Band Dispersion in (Ga,Mn)As, Ga(Bi,As), (Ga,Mn)(Bi,As) epitaxial nanolayers	11	Nataliia Tataryn
Coherence lengths determination for optimally-doped YBa ₂ Cu ₃ O _{7-δ} thin films	2	Eugene Petrenko

Wednesday.P4

Title	Symposium	Presenter
Observation of spin textures in La _{0.7} Sr _{0.3} MnO ₃ / SrIrO ₃ bilayers	13	Andrea Peralta
Study of gyrovector of magnetic hopfions	13	Daria Popadiuk
Modification of domain wall velocity in Ta/CoFeB/MgO due to voltage-induced non-volatile piezoelectric strain	13	Subhajit Roy
Magnetic properties of ultrathin Pt/Co/Re and Re/Co/Pt layers	13	Anuj Dhiman
Direct Correlation Between Domain Wall Distortions and Perpendicular Fields in Amorphous Glass-Coated Microwires	13	Lucia Fecova
Distorted 3Q state driven by topological-chiral magnetic interaction	13	Soumyajyoti Haldar
DFT study of the electronic and magnetic properties of monolayer and bilayer of VS ₂	6	Mirali Jafari
Magnetic Dynamical Properties and Ferromagnetic Resonance in (Ga,Mn)N Layers	9	Kausik Das

Wednesday.P5

Title	Symposium	Presenter
Global Magnetic Topology Optimization	12	Florian Slanovc
Magnetic noise and loss in magnetoelastic magnetic field sensors	12	Elizaveta Golubeva
Dual-pulse strategies for efficient switching of magnetic tunnel junctions	12	Viola Krizakova
Simultaneous measurements of XMCD, bulk magnetization, magnetostriction and temperature change: a HoCo ₂ case study	10	Gabriel Gomez Eslava
Susceptibility of a Small Diamagnetic Particle Detected from its Parabolic Trejectory Produced by Small Nd magnets in Terrestrial Gravity	10	Sou Jinnouchi
Quantification of Spin Accumulation Magnetoresistance in Ferromagnetic heterostructure using DC Bias Harmonic Hall Measurement	10	Han Yin Poh
Yu-Shiba-Rusinov qubit	18	Archana Mishra
Berry-phase induced entanglement of electron spins coupled to a microwave cavity	18	Sarath Prem
An ELF magnetic Control Study for Metamorphic Qualities in Thyroxine-Administrated Axolotls (<i>Ambystoma mexicanum</i>)	1	Hidenori Nakagawa

Poster session 4 | Thursday| 28 July 2022 | 18.15 – 19.15

Thursday.P1

Title	Symposium	Presenter
Strong Magnetism in Site-ordered C15b-type Laves-Phase Compound $YMgCo_4$	2	Taiki Shiotani
Exploring the antiferromagnetic ground states and domain walls of Mn bi- and trilayers on Ir (III) by SP-STM	4	Vishesh Saxena
Magnetic properties of $RCr_3(BO_3)_4$ crystals with Tb ³⁺ and Dy ³⁺ ions	4	Aleksei Bludov
All-optical study of interlayer exchange coupling in Fe/FexSi1-x multilayers	14	Adam Bonda
Laser-induced Spin Dynamics In Ferrimagnetic Iron Garnets in High Magnetic Fields	14	Irina Dolgikh
Surface plasmon-assisted control of phase of photo-induced spin precession in Au/YIG:Co structures	14	Artsiom Kazlou
Effect of en - H ₂ O substitution on the ground-state properties of Cu(en)SO ₄ X (X = en, (H ₂ O) ₂) compounds	7	Olha Vinnik
Magnetic susceptibilities at low magnetic fields and 3rd harmonic response of Cu-Zn ferrite nanoparticles for MPI applications	1	Yuko Ichiyonagi

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Title	Symposium	Presenter
Isotropic exchange bias in patterned IrMn/CoFe bilayers	11	Rafael Morales
Magnetic Characterization of Co ₂ MnAl/ PMN-PT (011) Multiferroic Heterostructures	11	Okan Ozdemir
Magnetic properties of amorphous Co _x Zr _{100-x} films	11	Parul Rani
Nonlinear Domain Wall Dynamics in Highly Magnetostrictive Amorphous Nanowires Prepared by Rapid Solidification	11	Tibor Adrian Óvári
The impact of finite magnetic anisotropy and hydrodynamics on the response of systems of magnetic colloidal particles	11	Pedro A. Sánchez
Magnetic properties of cobalt ultrathin film structures controlled by buffer-layer roughness	11	Carlos Henrique Santos Verbeno
Demonstrating and tailoring exchange bias on novel bulk nanocomposites processed by severe plastic deformation	11	Michael Zawadzki
Tuning of Magnetoresistive Properties of Graphene-Lanthanum Manganite Structures	11	Nerija Zurauskienė
A strong competition among the anisotropy terms in magnetically coupled Fe/Al/Fe thin film trilayers	11	Zengxin Wei

Thursday.P3

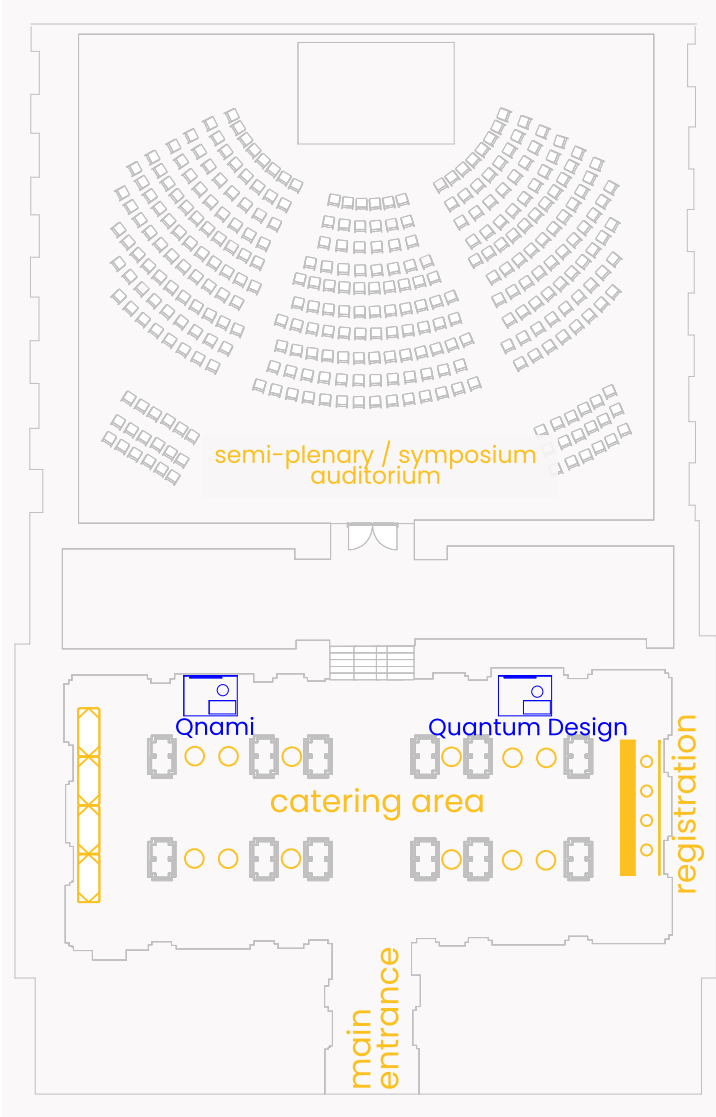
Title	Symposium	Presenter
Improving control of 3D printed shape programmable magneto active artificial muscles by analysis of their magnetization profile	17	Kilian Schäfer
Magnetoelastic excitations in CeAlAl ₃ measurements and calculations	17	Michal Stekiel
Magnetoransport Properties of Graphene with Magnetic Defects	6	Nga Do Thi
On the Room Temperature Weak Localization and Anomalous Temperature Dependence of Phase Coherence Length in L21 Ordered Heusler Alloy CoFeMnSi Thin Films	15	Vireshwar Mishra
Determination of Spin-Orbit Torque in PtSe ₂ /NiFe Heterostructure	15	Richa Mudgal
Van der Waals Magnet based Spin-Valve Devices at Room Temperature	15	Roselle Ngaloy
A magneto-transport method for measuring the exchange coupling in a synthetic antiferromagnet	15	Sam Parker
Study of the coupling between propagating spin waves in magnetic film	9	Yuliia Kharlan

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Title	Symposium	Presenter
Reconfigurable logic operations via gate controlled skyrmion motion in a nanomagnetic device	13	Bibekananda Paikaray
Topological Hall effect in two-dimensional systems with Skyrmion textures in the presence of eletromagnetic impurities.	13	Amir Nasser Zarezad
Edge states at a Rashba spin-orbit domain wall in the magnetized graphene	13	Michał Inglot
Thermodynamic properties and switching dynamics of perpendicular shape anisotropy MRAM	12	Wayne Lack
Higher-order Magnetic Anisotropy in Soft-hard Nanocomposite Materials	12	Thanh Binh Nguyen
Numerically stable and highly performant implementations of the analytic magnetic field solution of the diametrally magnetized cylinder	12	Peter Leitner
Direct magnetocaloric measurements of Heusler Ni ₂ MnGa microwires	8	Miroslav Hennel
Experimental Study of Large Rotational Magnetocaloric Effect in Ni(en)(H ₂ O) ₄ ·2H ₂ O	8	Petro Danylchenko

EXHIBITION FLOOR PLAN

(Old Library Building, ground floor)



List of Exhibitors

Qnami AG

Booth #3

Qnami is a VC-backed high-tech company with its roots at the Physics Department of the University of Basel in Switzerland. It develops fundamental new technology using quantum mechanics. The control of the state of a single electron enables measurement with a precision that could never be achieved before. The technique is called quantum sensing and Qnami is enthusiastically developing it to improve people's lives and the world.

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Qnami ProteusQ is a complete quantum microscope system. It is the first scanning NV (nitrogen-vacancy) microscope for the analysis of magnetic materials at the atomic scale. The Qnami ProteusQ system comes with state-of-the-art electronics and software. Its flexible design allows for future adjustments and scaling, expansion and capability upgrades. The proprietary Qnami ProteusQ quantum technology provides high precision images for you to see directly the most subtle properties of your samples and the effect of microscopic changes in your design or fabrication process.



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www.qnami.ch

Quantum Design GmbH

Booth #1

QDE is a leading European distributor of high-quality scientific instruments and components with focus on materials science,

cryogenics, magnetometry, and spectroscopy amongst others. The group offers components and systems used in material sciences, imaging, spectroscopy, photonics, nanotechnology and life science research. The group was founded more than 50 years ago and now employs more than 140 staff in 20 European countries. Today, Quantum Design Europe is part of the globally active Quantum Design International with headquarters in San Diego.



Quantum Design
EUROPE

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Email: Germany@qd-europe.com

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Other contributors

evico magnetics GmbH

The evico magnetics GmbH was founded in 2006 as spin-off of the Leibniz Institute for Solid State and Materials Research (IFW) Dresden. The main products are: (i) Magneto-optical Kerr microscope

systems. By making use of the Kerr effect in optical wide-field polarization microscopes, the magnetic domains and magnetization processes of magnetic materials are visualized with digital contrast enhancement. At the same time the Kerr microscope serves as magneto-optical magnetometer for the sensitive measurement of hysteresis loops (MOKE magnetometry). (ii) High Pressure Milling Vials with a gass temperature monitoring system for the synthesis of magnetic powders and hydrogen storage materials



Contact person: Prof. Rudolf Schaefer

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Email: r.schaefer@evico-magnetics.de

www.evico-magnetics.de

Useful information

Abstract book

An electronic version only available at jems2022.pl

Certificate of attendance

All registered participants are entitled to receive an electronic Certificate of Attendance upon request sent to info@jems2022.pl after the Conference.

Internet

Free Wi-Fi internet connection is available at the venue (Old Library Building and Auditorium Maximum Building).

Network / Password: contact reception desk for more details

Lost & Found

Lost & Found service is available at the registration desk during opening hours.

Parking

Please note that the whole of the centre of Warsaw (which is where University of Warsaw is located) is a paid parking zone. This rule applies from Monday to Friday, from 8 am to 8 pm. On Saturdays, Sundays and public holidays parking is free.

Parking fees:

- first hour: 3,90 PLN
- second hour: 4,60 PLN
- third hour: 5,50 PLN
- fourth and each subsequent hour: 3,90 PLN per hour

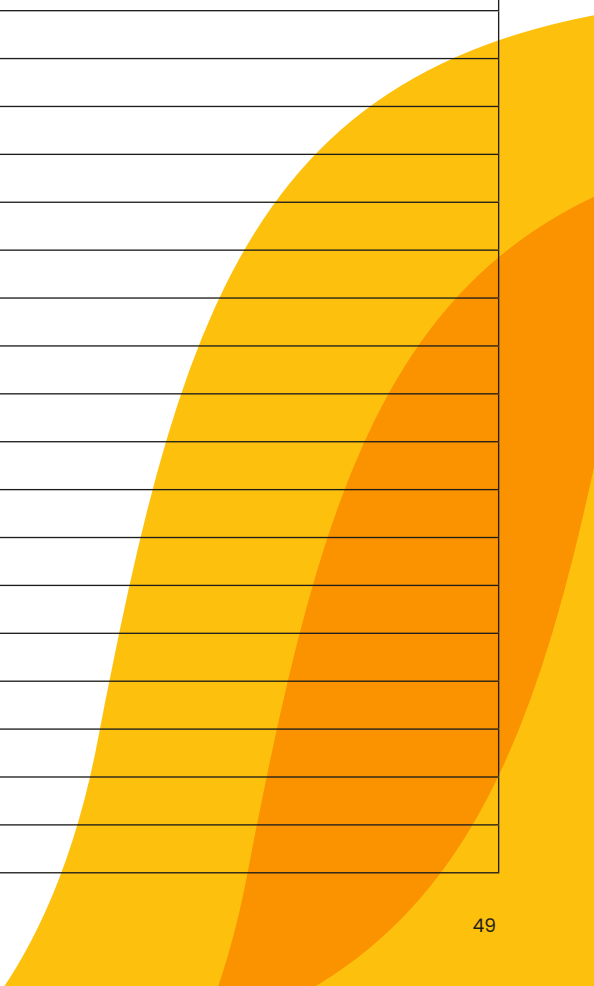
Registration opening hours

Sunday, 24 July 2022	15.30 – 19.30
Monday, 25 July 2022	08.00 – 19.30
Tuesday, 26 July 2022	08.00 – 19.30
Wednesday, 27 July 2022	08.00 – 18.30
Thursday, 28 July 2022	08.00 – 19.30
Friday, 29 July 2022	08.00 – 17.00

Venue address

Krakowskie Przedmieście 26/28 Str.
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