MORIS2024 Program

28 May (Tue.)	
12:00–17:00	Registration
12:50–13:00	Opening Remarks Takuya Satoh (Tokyo Institute of Technology, Japan)
	Tutorial Session 1 Chair: Takuya Satoh (Tokyo Institute of Technology, Japan)
13:00–14:30	Tutorial-1 Topological magnets for innovating quantum electronics Satoru Nakatsuji University of Tokyo, Japan
14:30–14:45	Coffee Break
	Tutorial Session 2 Chair: Takuya Satoh (Tokyo Institute of Technology, Japan)
14:45–16:15	Tutorial-2 Probing artificial spin ice with large scale facilities Laura Heyderman ETH Zurich - Paul Scherrer Institute, Switzerland
16:30–18:00	Get Together

29 May (Wed.)	
8:30–17:00	Registration
8:50–9:00	Opening Remarks Takayuki Ishibashi (Nagaoka University of Technology, Japan)
	Oral Session We-1 Chair: Atsufumi Hirohata (University of York, UK)
9:00–9:30	We-1-1(Invited) Ultrafast antiferromagnetism - terra incognita beyond the conventional approximations Alexey Kimel Radboud University Nijmegen, Netherlands
9:30–10:00	We-1-2(Invited) Ultrafast manipulation of antiferromagnetic order and domain wall dynamics by novel laser torques in Mn_2Au Oksana Chubykalo-Fesenko Instituto de Ciencia de Materiales de Madrid, CSIC, Spain
10:00–10:15	We-1-3 Current-driven domain wall dynamics in antiferromagnets using correlated SOT and STT Jackson Ross University of York, UK
10:15–10:30	Coffee Break
	Oral Session We-2 Chair: Jackson Ross (University of York, UK)
10:30–11:00	We-2-1(Invited) THz emission from antiferromagnets, with and without inverse spin Hall effect Chiara Ciccarelli University of Cambridge, UK

11:00–11:30	We-2-2(Invited) Ultra-high spin emission from antiferromagnetic FeRh Joseph Barker University of Leeds, UK
11:30–11:45	We-2-3 Polarization-control of laser-induced torque in metallic antiferromagnet Mn_3NiN Jozef Kimák Charles University, Czech Republic
11:45–12:00	We-2-4 Scanning nitrogen-vacancy imaging of non-collinear antiferromagnetic thin films Freya Johnson University of Cambridge, UK
12:00–13:30	Lunch
13:30–15:00	Poster Session We-P Chair: Fumiko Akagi (Kogakuin University, Japan)
	Oral Session We-3 Chair: Alexey Kimel (Radboud University Nijmegen, Netherlands)
15:00–15:30	We-3-1(Invited) Detection of antiferromagnetic orders by optical magnetoelectric effects Sándor Bordács University of Augsburg, Germany
15:30–16:00	We-3-2(Invited) Magneto-thermal transport experiments in altermagnets Helena Reichlová Institute of Physics, CAS Prague, Czech Republic
16:00–16:15	We-3-3 Strong coupling of magnons and phonons mediated by cavity photons Marcin Białek Institute of High Pressure Physics, Polish Academy of Sciences, Poland
16:15–16:30	Coffee Break
	Oral Session We-4 Chair: Koji Sekiguchi (Yokohama National University, Japan)
16:30–17:00	We-4-1(Invited) Real space imaging of unconventional spin-wave dynamics by high throughput magneto-optical imaging Tomosato Hioki University of Tokyo, Japan
17:00–17:30	We-4-2(Invited) Chiral phononics: how to control magnetism with a twist Dominik Maximilian Juraschek Tel Aviv University, Israel
17:30–17:45	We-4-3 Chiral phonons magnetize holes in semiconductor quantum well Olga Ken TU Dortmund, Germany

17:45–18:00	We-4-4 Anomalous Nernst effect in GdCo alloys for heat flux sensing Kenji Tanabe Toyota Technological Institute, Japan

30 May (Thu.)	
8:30–15:00	Registration
	Oral Session Th-1 Chair: Yuta Sasaki (National Institute for Materials Science, Japan)
9:00–9:30	Th-1-1(Invited) Ultra-fast all optical switching in spintronic devices Stéphane Mangin Université de Lorraine, France
9:30–10:00	Th-1-2(Invited) Light-wave control of charge and spin dynamics Martin Schultze Graz University of Technology, Austria
10:00–10:15	Th-1-3 Light-induced magnetic ordering Thomas Jauk Graz University of Technology, Austria
10:15–10:30	Coffee Break
	Oral Session Th-2 Chair: Dominik Maximilian Juraschek (Tel Aviv University, Israel)
10:30–11:00	Th-2-1(Invited) Floquet magnons in a periodically-driven magnetic vortex Katrin Schultheiß Helmholtz-Zentrum Dresden-Rossendorf, Germany
11:00–11:30	Th-2-2(Invited) Orbital torque and orbital pumping Kyung-Jin Lee KAIST, Korea
11:30–11:45	Th-2-3 Quadratic and cubic magneto-optical Kerr effect investigated by the eight-directional method Jaroslav Hamrle Czech Technical University, Czech Republic
11:45–12:00	Th-2-4 Enhanced light absorption in nanomagnets Daniel Bromley Imperial College London, UK
12:00–13:30	Lunch
13:30–15:00	Poster Session Th-P Chair: Yoshito Ashizawa (Nihon University, Japan)
	Oral Session Th-3 Chair: Yuya Kubota (RIKEN SPring-8 Center, Japan)

15:00–15:30	Th-3-1(Invited) Road to x-ray science at above 100 T Akihiko Ikeda The University of Electro-Communications, Japan
15:30–16:00	Th-3-2(Invited) Nanoscale transient polarization gratings Laura Foglia Elettra Sincrotrone Trieste, Italy
16:00–16:15	Th-3-3 Feature of itinerant magnetism in $Fe_{0.6}Al_{0.4}$ film with B2-like short-range-order Kentaro Toyoki Osaka University, Japan
16:15–16:30	Coffee Break
	Oral Session Th-4 Chair: Martin Veis (Charles University, Czech Republic)
16:30–17:00	Th-4-1(Invited) Coherent x-ray imaging of fluctuations and disorder in magnetic thin films Felix Büttner University of Augsburg, Germany
17:00–17:30	Th-4-2(Invited) Coherent x-ray imaging of three dimensional spin textures Claire Donnelly MPI CPfS, Germany
17:30–17:45	Th-4-3 Mechanism of electrical switching of ultrathin CoO/Pt bilayers Christin Schmitt Johannes Gutenberg University Mainz, Germany
17:45–18:15	Award Ceremony Takuya Satoh (Tokyo Tech, Japan)
18:30–19:00	Drinks Reception
19:00–21:00	Banquet Roy W. Chantrell (University of York, UK), Koji Sekiguchi (Yokohama National University, Japan)

31 May (Fri.)	
	Oral Session Fr-1 Chair: Shin Saito (Tohoku University, Japan)
9:00–9:30	Fr-1-1(Invited) Coupled oscillation of field generation layers in a spin-torque oscillator for microwave-assisted magnetic recording Yuji Nakagawa Toshiba, Japan
9:30–10:00	Fr-1-2(Invited) HAMR time: heat-assisted magnetic recording for ultrahigh capacity HDDs Mark Gubbins Seagate Technology, Northern Ireland

10:00–10:15	Fr-1-3 Iron loss behaviors of various inductors under dc bias fields Satoshi Okamoto Tohoku University, Japan
10:15–10:30	Coffee Break
	Oral Session Fr-2 Chair: Joseph Barker (University of Leeds, UK)
10:30–11:00	Fr-2-1(Invited) Cavity magnonics: coherent coupling of magnons to photons in the microwave and optical regime Silvia Viola Kusminskiy RWTH Aachen, Germany
11:00–11:15	Fr-2-2 MO recording technique for online learning of magneto-optical diffractive deep neural network Hotaka Sakaguchi Nagaoka University of Technology, Japan
11:15–11:30	Fr-2-3 All-optical & surface-probe control of chiral spin textures in artificial spin ice Holly H. Holder Imperial College London, UK
11:30–11:45	Fr-2-4 Photonic image convolution & machine vision via random network lasers Jack C. Gartside Imperial College London, UK
11:45–12:00	Fr-2-5 Neuromorphic overparameterisation: generalisation and few-shot learning in multilayer physical neural networks of nanomagnetic arrays Kilian Stenning Imperial College London, UK
12:00–13:30	Lunch
	Oral Session Fr-3 Chair: Satoshi Okamoto (Tohoku University, Japan)
13:30–14:00	Fr-3-1(Invited) Nanoscale investigations of intrinsic surface magnetism and spin-textures in antiferromagnets Kai Wagner University of Basel, Switzerland
14:00–14:15	Fr-3-2 High-temperature micromagnetic modelling of all-optical switching In a Tb/Co bilayer Paul Iulian Gavriloaea Materials Science Institute of Madrid (CSIC), Spain
14:15–14:45	Fr-3-3(Invited) Optical control of magnetization in van der Waals bonded materials Robert James Hicken University of Exeter, UK
14:45–15:00	Closing Remarks Arata Tsukamoto (Nihon University, Japan)