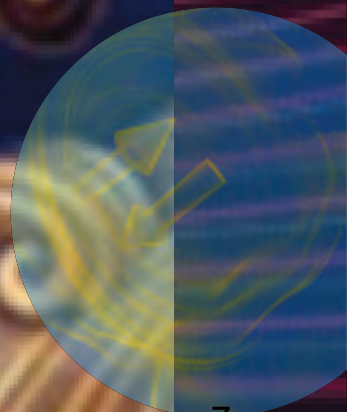
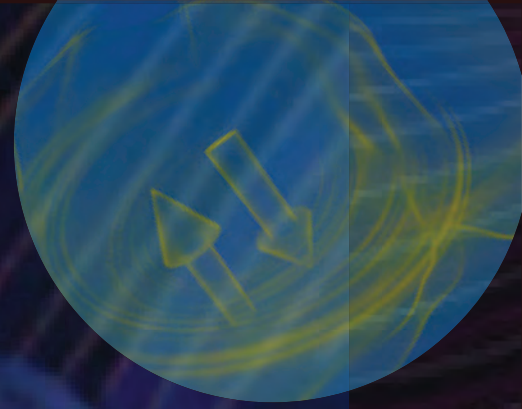


# OVERALL PROGRAM



# Day 1 February 13, 2024 (Ito Hall)

9:00 -10:00	Registration
10:00 - 10:15	<b>Opening Remark</b> Satoru Nakatsuji Director, Trans-Scale Quantum Science Institute, The University of Tokyo
10:15 -12:15	<b>Oral Session A1</b> Chair: Satoru Nakatsuji, The University of Tokyo
	<b>Keynote Talk (10:15 - 10:55)</b> <b>Orbital torque and orbital pumping</b> Kyung-Jin Lee Korea Advanced Institute of Science and Technology (KAIST)
	<b>Contributed Oral (10:55 - 11:15)</b> <b>Observation of current-driven fast magnetic domain-wall motion in noncollinear antiferromagnets</b> Kouta Kondou Center for Emergent Matter Science, RIKEN
	<b>Contributed Oral (11:15 - 11:35)</b> <b>Stroboscopic magneto-optical imaging of current-induced domain wall dynamics in ferrimagnet GdFeCo</b> Kazuma Ogawa Department of Physics, The University of Tokyo
	<b>Keynote Talk (11:35 - 12:15)</b> <b>Electrical 180° switching of Néel vector in altermagnets</b> Cheng Song School of Materials Science and Engineering, Tsinghua University
12:15 -14:00	Lunch Break
14:00 – 15:40	<b>Oral Session A2</b> Chair: Stefan Blügel Peter Grünberg Institute and Institute for Advanced Simulation, Forschungszentrum Jülich GmbH
	<b>Keynote Talk (14:00 - 14:40)</b> <b>TBD</b> Prineha Narang Physical Sciences, the University of California, Los Angeles (UCLA)
	<b>Contributed Oral (14:40 – 15:00)</b> <b>Hyperuniform electron distribution in quasicrystals</b> Shiro Sakai Center for Emergent Matter Science, RIKEN
	<b>Contributed Oral (15:00 – 15:20)</b> <b>Four-index coulomb interaction beyond Hund's coupling</b> Steffen Backes RIKEN iTHEMS
	<b>Contributed Oral (15:20 – 15:40)</b> <b>Exact quantum spin Hamiltonian for magnetic interactions</b> Hiroshi Katsumoto Peter Grünberg Institut and Institute for Advanced Simulation, Forschungszentrum Jülich and JARA
15:40 – 16:00	Coffee and Tea Break
16:00 – 18:00	<b>Oral Session A3</b> Chair: Surjeet Rajendran, Johns Hopkins University
	<b>Special Session Talk (16:00 – 16:40)</b> <b>Quantum field theory aspects of Dirac semimetals</b> Maria A. H. Vozmediano Instituto de Ciencia de Materiales de Madrid (ICMM - CSIC)
	<b>Special Session Talk (16:40 – 17:20)</b> <b>Chiral transport in the universe</b> Naoki Yamamoto Department of Physics, Keio University, Japan
	<b>Contributed Oral (17:20-17:40)</b> <b>Chiral anomalies through laser-induced chiral gauge fields in disordered 3D Dirac semimetals</b> Hung-Hsuan Teh The Institute for Solid State Physics (ISSP), The University of Tokyo
	<b>Contributed Oral (17:40-18:00)</b> <b>Emergent spin-momentum locking and triplet-mixed cooper pairs in a chiral organic superconductor</b> Takuro Sato Research Center of Integrative Molecular Systems (CIMoS), Institute for Molecular Science
18:00 – 18:30	Free Discussion with Coffee and Tea

# Day 2 February 14, 2024 (Ito Hall)

9:00 -10:40	<b>Oral Session B1</b> Chair: Kyung-Jin Lee, KAIST
	<b>Keynote Talk (9:00 – 9:40)</b> <b>Electrical control of noncollinear antiferromagnetic Mn<sub>3</sub>Sn</b> Shunsuke Fukami Research Institute of Electrical Communication, Tohoku University
	<b>Contributed Oral (9:40 - 10:00)</b> <b>Electrical manipulation and detection of topological antiferromagnetic state in Mn<sub>3</sub>Sn-based epitaxial heterostructures</b> Tomoya Higo Department of Physics, the University of Tokyo
	<b>Keynote Talk (10:00 - 10:40)</b> <b>The Josephson diode effect</b> Stuart Parkin The Max Planck Institute of Microstructure Physics
10:40 -11:00	<b>Coffee and Tea Break</b>
11:00 – 12:40	<b>Oral Session B2</b> Chair: Shinsei Ryu, Princeton University
	<b>Contributed Oral (11:00-11:20)</b> <b>Ferroc multipole order in the quadrupole Kondo lattice PrV<sub>2</sub>Al<sub>20</sub> studied by magnetostriction and thermal expansion</b> Akito Sakai Department of Physics, The University of Tokyo
	<b>Contributed Oral (11:20-11:40)</b> <b>Versatile magnetic hedgehog lattice phases induced by anisotropic interactions in centrosymmetric systems</b> Shun Okumura Department of Applied Physics, The University of Tokyo
	<b>Contributed Oral (11:40-12:00)</b> <b>Emergent inductance from spin fluctuations in strongly correlated magnets</b> Taekoo Oh Center for Emergent Matter Science, RIKEN
	<b>Contributed Oral (12:00-12:20)</b> <b>Majorana-mediated spin transport in the Kitaev model at finite temperatures</b> Akihisa Koga Department of Physics, Tokyo Institute of Technology
	<b>Contributed Oral (12:20-12:40)</b> <b>Field control of quasiparticle decay in a quantum antiferromagnet</b> Takatsugu Masuda The Institute for Solid State Physics (ISSP), The University of Tokyo
12:40 – 14:00	<b>Lunch Break</b>
14:00 – 15:40	<b>Oral Session B3</b> Chair: Maria A. H. Vozmediano, Instituto de Ciencia de Materiales de Madrid (ICMM - CSIC)
	<b>Special Session Talk (14:00 – 14:40)</b> <b>Topological phenomena out of equilibrium and time-reversal symmetry</b> Shinsei Ryu Department of Physics, Princeton University
	<b>Special Session Talk (14:40 – 15:20)</b> <b>Heterodyne Hall effect in oscillating magnetic fields</b> Takashi Oka The Institute for Solid State Physics (ISSP), The University of Tokyo
	<b>Contributed Oral (15:20-15:40)</b> <b>Nonlinear optical responses in <math>\alpha</math>-type organic salt</b> Keisuke Kitayama Department of Physics, University of Tokyo
15:40 – 16:30	<b>Scientific Publishing and Communications Session</b>
	Debarchan Das, Associated Editor at Nature Physics Giulia Pacchioni, Chief Editor at Nature Review Materials
16:30 – 18: 30	<b>Poster Session 1</b>
18:30 – 21: 00	<b>Banquet</b>

# Day 3 February 15, 2024 (Ito Hall)

9:00 – 10:20	<b>Oral Session C1</b> Chair: Shunsuke Fukami, Tohoku University
	<b>Keynote Talk (9:00 – 9:40)</b> <b>Spin-transfer-torque MRAM: the next revolution in memory</b> Daniel C. Worledge IBM Research
	<b>Keynote Talk (9:40 – 10:20)</b> <b>Antiferromagnetic tunnel junctions for spintronics</b> Evgeny Y. Tsybal University of Nebraska-Lincoln (UNL)
10:20 – 10:35	<b>Sponsor Speech</b>
	<b>R&amp;D initiatives of JSR Corporation</b> Kouichi Hasegawa JSR Corporation
10:35 – 10:55	<b>Coffee and Tea Break</b>
10:55 – 11:55	<b>Oral Session C2</b> Chair: Cheng Song, Tsinghua University
	<b>Contributed Oral (10:55 – 11:15)</b> <b>Anisotropic spin polarized current and magnetoresistance in an antiferromagnetic tunnel junction</b> Shinji Miwa The Institute for Solid State Physics (ISSP), The University of Tokyo
	<b>Contributed Oral (11:15 – 11:35)</b> <b>First-principles study on tunnel magnetoresistance effect with antiferromagnets</b> Katsuhiro Tanaka Department of Physics, The University of Tokyo
	<b>Contributed Oral (11:35 – 11:55)</b> <b>Magnetic tunnel junction-based readout for spin Hall nano-oscillators</b> Akash Kumar Department of Physics, University of Gothenburg and Research Institute of Electrical Communication, Tohoku University
11:55 – 13:30	<b>Lunch Break</b>
13:30 – 15:50	<b>Oral Session C3</b> Chair: Naoki Yamamoto, Keio University
	<b>Special Session Talk (13:30 – 14:10)</b> <b>Matter under extreme conditions in neutron stars</b> Gordon Baym The University of Illinois at Urbana-Champaign (UIUC)
	<b>Contributed Oral (14:10-14:30)</b> <b>Nonrelativistic trace anomaly and its impact on equation of state in dense fermionic matter: Toward understanding hadron-quark crossover via analogue quantum simulation</b> Hiroyuki Tajima Department of Physics, The University of Tokyo
	<b>Special Session Talk (14:30 – 15:10)</b> <b>Fundamental physics with quantum sensors</b> Surjeet Rajendran The Department of Physics and Astronomy, Johns Hopkins University
	<b>Contributed Oral (15:10-15:30)</b> <b>Braiding and fusion of Majorana fermions in minimal Kitaev spin liquid on a single hexagon with 5 qubits</b> Motohiko Ezawa Department of Applied Physics, The University of Tokyo
	<b>Contributed Oral (15:30-15:50)</b> <b>Integrating ultrafast switches into a single molecule</b> Hirofumi Yanagisawa Shizuoka University
15:50 – 16:00	<b>Coffee and Tea Break</b>
16:00 – 18:00	<b>Poster Session 2</b>

## Day 4 February 16, 2024 (Ito Hall)

	<b>Oral Session D1</b> Chair: Tomas Jungwirth Academy of Sciences of the Czech Republic (ASCR)
9:00 -10:40	<b>Keynote Talk (9:00 – 9:40)</b> <b>From the Fermi surface to topological magnetization textures</b> Stefan Blügel Peter Grünberg Institute (PGI) and Institute for Advanced Simulation, Forschungszentrum Jülich GmbH
	<b>Contributed Oral (9:40 - 10:00)</b> <b>Observation of cluster magnetic octupole domains in the antiferromagnetic Weyl semimetal Mn<sub>3</sub>Sn Nanowire using an atomic force microscope</b> Hironari Isshiki Department of Physics, University of Tokyo
	<b>Contributed Oral (10:00 - 10:20)</b> <b>Topological magneto-optical effect from skyrmion lattice</b> Yoshihiro Okamura Department of Applied Physics and Quantum Phase Electronics Center, University of Tokyo
	<b>Contributed Oral (10:20 – 10:40)</b> <b>First principles calculation of topological Hall conductance in the skyrmion lattice</b> Hsiao-Yi Chen Center for Emergent Matter Science, RIKEN
10:40 -11:00	<b>Coffee and Tea Break</b>
	<b>Oral Session D2</b> Chair: Evgeny Y. Tsymbal , University of Nebraska-Lincoln (UNL)
11:00 – 12:40	<b>Keynote Talk (11:00 – 11:40)</b> <b>Altermagnets: An unconventional magnetic class</b> Tomas Jungwirth The Department of Spintronics and Nanoelectronics, Institute of Physics, Academy of Sciences of the Czech Republic (ASCR)
	<b>Contributed Oral (11:40 – 12:00)</b> <b>Symmetry of emergent physical phenomena free from relativistic spin-orbit coupling</b> Hikaru Watanabe Research Center for Advanced Science and Technology, The University of Tokyo
	<b>Contributed Oral (12:00 – 12:20)</b> <b>Acoustically driven magnon-phonon coupling in a layered antiferromagnet</b> Jorge Puebla Center for Emergent Matter Science, RIKEN
	<b>Contributed Oral (12:20 – 12:40)</b> <b>Emergent isotropic spin fluctuations from a diluted 2D anisotropic antiferromagnet</b> Hidemaro Suwa Department of Physics, The University of Tokyo
12:40 – 13:00	<b>Reception of Poster Award &amp; Closing Remark</b>