

Fri. Aug 19, 2022

Poster

Poster

[P19-SF1] Poster

2:00 PM - 4:00 PM Poster (Main Hall B)

Poster

[P19-SF2A] Poster

2:00 PM - 4:00 PM Poster (Main Hall B)

Poster

[P19-SF2B] Poster

2:00 PM - 4:00 PM Poster (Main Hall B)

Poster

[P19-SF3A] Poster

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[P19-SF3B] Poster

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[P19-SF4] Poster

2:00 PM - 4:00 PM Poster (Main Hall B)

Poster

[P19-SF5] Poster

2:00 PM - 4:00 PM Poster (Main Hall B)

Poster

[P19-SF1] Poster 1 remote

9:00 PM - 11:00 PM Poster (Main Hall B)

[P19-SF1-01] True mechanism of spontaneous order from turbulence in two-dimensional superfluid manifolds

*Toshiaki Kanai^{1,2}, Wei Guo^{1,2} (1. Florida State University, 2. National High Magnetic Field Laboratory)

[P19-SF1-02] Anisotropic dynamics of formation of a quantized vortex lattice in a rotating Bose-Einstein condensate

*Yuto Sano¹, Makoto Tsubota^{1,2} (1. Osaka City University, 2. Osaka Metropolitan University)

[P19-SF1-04] Formation of local and global currents in a toroidal Bose-Einstein condensate via an inhomogeneous artificial gauge field
*Sahar Hejazi¹, Jua Polo⁴, Makoto Tsubota^{1,2,3}
(1. Osaka City University, 2. Department of Physics and Nambu Yoichiro Institute of Theoretical and Experimental Physics (NITEP), 3. The OCU Advanced Research Institute for Natural Science and Technology (OCARINA), Osaka City University, 4. Quantum Research Centre, Technology Innovation Institute)

[P19-SF1-05] Exact non-equilibrium dynamics of quantum double dark-solitons in the 1D Bose gas
*Tetsuo Deguchi¹, Kayo Kinjo¹, Jun Sato² (1. Ochanomizu University, 2. Tokyo Polytechnic University)

[P19-SF1-08] Tensor-network study of correlation-spreading dynamics in two-dimensional quantum many-body systems
*Ryui Kaneko¹, Ippei Danshita¹ (1. Kindai University)

[P19-SF1-09] Creating the Ising model with sign-inverted next-nearest-neighbor interaction by using Rydberg atoms
Yuki Nakamura², Ryui Kaneko¹, *Ippei Danshita¹
(1. Kindai University, 2. Kyoto University)

[P19-SF1-10] Dynamics of Self-Gravitating Bose-Einstein Condensates Based on The Gross-Pitaevskii-Poisson Model
*Kenta Asakawa¹ (1. Osaka Metropolitan University)

[P19-SF1-11] Quantum droplet of a Bose-Bose mixture in an optical lattice near the Mott insulator transition
Yoshihiro Machida¹, Ippei Danshita¹, Daisuke Yamamoto², *Kenichi Kasamatsu¹ (1. Kindai University, 2. Nihon University)

[P19-SF1-12] The dynamical properties of ordered structures in dipolar Bose-Hubbard model
*Kazuhiro Tamura¹, Shohei Watabe², Tetsuro Nikuni¹ (1. Department of Physics, Faculty of Science Division I, Tokyo University of Science, 2. Faculty of Engineering, Computer Science and Engineering, Shibaura Institute of Technology)

- [P19-SF1-13] Equation of state of the unitary Fermi gas revealed by the fourth order virial expansion
*Shimpei Endo¹, Yvan Castin² (1. Tohoku University, 2. LKB ENS, Univ. PSL, CNRS, Univ. Sorbonne & Collège de France)
- [P19-SF1-14] Damped Langevin dynamics in Josephson junctions
*Koichiro Furutani¹ (1. University of Padova)
- [P19-SF1-15] FFLO state and phase separation in a spin-imbalanced Fermi gas loaded on an optical lattice: Beyond the mean-field approximation to include effects of anisotropic pairing fluctuations
*Taira Kawamura¹, Yoji Ohashi¹ (1. Keio University)
- [P19-SF1-16] Transverse field dependence of the ground state in the Z_2 Bose-Hubbard model
*Yuma Watanabe¹, Shohei Watabe², Tetsuro Nikuni¹ (1. Tokyo University of Science, 2. Shibaura Institute of Technology)
- [P19-SF1-17] Dynamical Properties of Spin-Orbit-Coupled Fulde-Ferrell Superfluids After Quantum Quench
*Zhiyang Li¹, Shohei Watabe¹, Tetsuro Nikuni¹ (1. Tokyo University of Science)
- [P19-SF1-18] Entanglement dynamics of bosons in a 1D optical lattice
*Shion Yamashika¹, Kota Sugiyama¹, Ryosuke Yoshii², Daichi Kagamihara³, Shunji Tsuchiya¹ (1. Chuo Univ., 2. Sanyo-Onoda City Univ., 3. Kindai Univ.)
- [P19-SF1-19] Leggett-Garg tests of macrorealism for a Bose condensate in a double-well potential
*Tsubasa Sakamoto¹, Ryosuke Yoshii², Shunji Tsuchiya¹ (1. Chuo Univ., 2. Sanyo-Onoda City Univ.)
- [P19-SF1-21] Faraday waves in Bose-Einstein Condensates
*Nobuyuki Shukuno¹, Makoto Tsubota^{1,2} (1. Osaka City University, 2. Osaka Metropolitan University)
- [P19-SF1-22] Collective excitation modes in a dipolar and non-dipolar Fermi gas mixture
*Takahiko Miyakawa¹, Eiji Nakano², Hiroyuki Yabu³ (1. Aichi Univ. of Education, 2. Kochi Univ., 3. Ritsumeikan Univ.)
- [P19-SF1-23] Long Lifetime Supersolid of Two Component Dipolar BEC
*Shaoxiong Li¹, Hiroki Saito¹ (1. University of Electro-Communications)
- [P19-SF1-24] Strong coupling and retardation effects on odd-frequency Fermi superfluid
*Shunpei Iwasaki¹, Koki Manabe¹, Yoji Ohashi¹ (1. Keio Univ.)
- [P19-SF1-25] Effective interaction between composite Fermi molecules in a strongly-interacting Bose-Fermi_↑-Fermi_↓ mixture: Exact few-body analysis and its implications to the QCD quantum simulation
*Koki Manabe¹, Yoji Ohashi¹ (1. Keio Univ.)
- [P19-SF1-26] Bi-polaron in $SU(3)$ Fermi gas with three-body interaction
*PANOSCHKO GALYNA Ivanivna¹ (1. Ivan Franko National University of Lviv)
- [P19-SF1-28] Atomtronics with a spin: Full counting statistics, Ramsey interferometry and nonequilibrium orthogonality catastrophe in cold quantum gases
*Jhih-Shih You¹ (1. National Taiwan Normal University)
- [P19-SF1-29] Topologically Constrained Phase Profile of a Quantum Dark Soliton on a One-dimensional Ring
*Kayo Kinjo¹, Jun Sato², Tetsuo Deguchi¹ (1. Ochanomizu University, 2. Tokyo Polytechnic University)
- [P19-SF1-30] Detection of roton and phonon excitations in a spin-orbit coupled Bose-Einstein condensate with a moving barrier
*Hao Lyu¹ (1. Okinawa Institute of Science and Technology Graduate University)
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- Poster
- [P19-SF2A] Poster 1 remote
9:00 PM - 11:00 PM Poster (Main Hall B)
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- [P19-SF2A-01] Cu-Spin Correlation and Multiple Carriers in Electron-Doped High- T_c

Superconductor $\text{Pr}_{2-x-y}\text{La}_y\text{Ce}_x\text{CuO}_4$

*Tadashi Adachi¹, Yusuke Nagakubo¹, Yota Komiyama¹, Malik Anjelh Baqiya^{2,3}, Taro Ohgi², Kazuki Tajima¹, Tsutomu Ishimoto¹, Akira Takahashi², Takuya Konno², Hideki Kuwahara¹, Takayuki Kawamata², Yoji Koike², Isao Watanabe⁴, Akihiro Koda⁵, Ryosuke Kadono⁵, Tatsunori Okada⁶, Satoshi Awaji⁶
(1. Sophia University, 2. Department of Applied Physics, Tohoku University, 3. Institut Teknologi Sepuluh Nopember, 4. RIKEN, 5. KEK, 6. Institute for Materials Research, Tohoku University)

[P19-SF2A-03] Spin pumping in

$\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3/\text{YBa}_2\text{Cu}_3\text{O}_7$
heterostructures

*Santiago Jose Carreira¹, Adbelmadjid Anane¹, Jacobo Santamaria², Javier E. Villegas¹ (1. Unite Mixte de Physique, CNRS, Thales, 2. Grupo de Física de Materiales Complejos (GFMC). Dpto. de Física de Materiales. Facultad de Ciencias Físicas, UCM, Madrid, Spain.)

[P19-SF2A-04] Density Functional Theory Calculations with Different Electronic Correlational Functionals Applied to La_2CuO_4

*SUPPARAT CHAROENPHON^{1,2}, Pakpoom Reunchan², Isao Watanabe^{1,2} (1. RIKEN, 2. Kasetsart University)

[P19-SF2A-05] Angular Dependence of Magnetizations in a $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ Film with BaHfO_3 Nanorods at Low Magnetic Fields

*Hiroyuki Deguchi¹, Ryota Miake¹, Hikaru Kawaguchi¹, Masaki Mito¹, Tomoya Horide¹, Kaname Matsumoto¹ (1. Kyushu Institute of Technology)

[P19-SF2A-07] Acoustic Plasmons in Electron- and Hole-Doped Cuprates Studied by Resonant Inelastic X-Ray Scattering at the Oxygen K Edge

*Atsushi Fujimori¹, Di-Jing Huang³, Jun Okamoto³, Takashi Mizokawa², Yoji Koike⁴, Tadashi Adachi⁵, Hiao-Yu Huang³, Amol Singh³, Naoki Moritsuna², Atsuhiko Matsumoto², Chien-Te Chen³ (1. University of Tokyo, 2. Waseda University, 3. National

Synchrotron Radiation Research Center, 4. Tohoku University, 5. Sophia University)

[P19-SF2A-08] Cu *K*-edge X-ray absorption fine structure study of *T'*-type RE_2CuO_4 (*RE* = rare earth): Toward a unified understanding of the electronic state of *T'*-type cuprate

*Masaki FUJITA¹, Yizhou Chen^{1,2}, Shun Asano^{1,2}, Tong Wang^{1,2}, Peiao Xie^{1,2}, Shinnosuke Kitayama^{1,2}, Kenji Ishii³, Daiju Matsumura⁴, Takuya Tsuji⁴, Takanori Taniguchi¹ (1. Institute for Materials Research, Tohoku University, 2. Department of Physics, Tohoku University, 3. Synchrotron Radiation Research Center, National Institutes for Quantum and Radiological Science and Technology, 4. Materials Sciences Research Center, Japan Atomic Energy Agency)

[P19-SF2A-09] *Ab initio* Downfolding Method and Material Design of Strongly Correlated Systems for high-*T_c* superconductor

*Motoaki Hirayama^{1,2,3}, Michael Thobias Schmid⁴, Terumasa Tadano⁵, Takahiro Misawa⁶, Masatoshi Imada^{7,4} (1. University of Tokyo, 2. RIKEN Center for Emergent Matter Science, 3. JST, PRESTO, 4. Waseda Research Institute for Science and Engineering, 5. National Institute for Materials Science, 6. Beijing Academy of Quantum Information Sciences, 7. Toyota Physical and Chemical Research Institute)

[P19-SF2A-10] NMR study under pressure on highly Ca-doped spin-ladder compound

$\text{Sr}_{1.4}\text{Ca}_{12.6}\text{Cu}_{24}\text{O}_{41}$

*Akihiko Hisada¹, Ko-ichi Magishi¹, Naoki Fujiwara², Yoshiya Uwatoko³, Guochu Deng^{4,5}, Ekaterina Pomjakushina⁵, Kazimierz Conder⁵, Dinadhayalane Mohan Radheep⁶, Raman Thiyagarajan⁶, Sankaran Esakkimuthu⁶, Sonachalam Arumugam⁶ (1. Tokushima University, 2. Kyoto University, 3. The University of Tokyo, 4. Australian Nuclear Science and Technology Organisation, 5. Paul Scherrer Institut, 6. Bharathidasan University)

- [P19-SF2A-11] Low-temperature normal-state transport of the infinite-layer superconducting nickelate
*Yu-Te Hsu¹, Bai Yang Wang², Kyuho Lee², Maarten Berben¹, Caitlin Duffy¹, Danfeng Li^{2,3}, Harold Hwang², Nigel Hussey^{1,4} (1. Radboud University, 2. Stanford University, 3. City University of Hong Kong, 4. University of Bristol)
- [P19-SF2A-12] Anomalous enhancement of the magnetic spectral weight in the superconducting phase of $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$
*Kazuhiko Ikeuchi¹, Shuichi Wakimoto², Masaki Fujita³, Tatsuo Fukuda⁴, Ryoichi Kajimoto⁵, Masatoshi Arai⁶ (1. Neutron Science and Technology Center, CROSS, 2. J-PARC Center, JAEA, 3. IMR, Tohoku Univ., 4. MSR, JAEA, 5. MLF, J-PARC Center, JAEA, 6. ESS)
- [P19-SF2A-13] Electronic inhomogeneity in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$ revealed by micro photoemission spectroscopy
*Hideaki Iwasawa^{1,2,3,4}, Takaya Sugiyama⁵, Ryunosuke Takahashi⁶, Shigeyuki Ishida⁷, Taichi Okuda⁴, Koji Miyamoto⁴, Hiroki Wadati⁶, Akio Kimura⁵, Yoshiyuki Yoshida⁷, Hiroshi Eisaki⁷ (1. Institute for Advanced Synchrotron Light Source, National Institutes for Quantum Science and Technology, 2. Synchrotron Radiation Research Center, National Institutes for Quantum Science and Technology, 3. QST Advanced Study Laboratory, National Institutes for Quantum Science and Technology, 4. Hiroshima Synchrotron Radiation Center, Hiroshima University, 5. Graduate School of Advanced Science and Engineering, Hiroshima University, 6. Graduate School of Science, University of Hyogo, 7. National Institute of Advanced Industrial Science and Technology)
- [P19-SF2A-14] Doping Dependence of the Critical Current Density in Single Crystals of $\text{Bi}_{2+x}\text{Sr}_{2-x}\text{CaCu}_2\text{O}_{8+\delta}$ Cuprate High - T_c Superconductors
*Junichiro Kato^{1,2}, Yutaro Mino^{1,2}, Pavan Kumar Naik Sugali^{1,2}, Shungo Nakagawa^{3,2}, Takanari Kashiwagi³, Shigeyuki Ishida², Hiroshi Eisaki², Taichiro Nishio¹ (1. Tokyo University of Science, 2. National Institute of Advanced Industrial Science and Technology, 3. University of Tsukuba)
- [P19-SF2A-15] Carrier-Doping Effect on the Antiferromagnetic Correlation in the Undoped (Ce-Free) Superconductor $\text{T}'\text{-La}_{1.8}\text{Eu}_{0.2}\text{CuO}_4$ Studied by μ SR
*Takayuki Kawamata¹, Toshiki Sunohara¹, Kota Shiosaka¹, Ryoki Nagaoka¹, Tadashi Adachi², Masatsune Kato¹, Isao Watanabe³, Akihiro Koda⁴, Jumpei Nakamura⁴, Shoichiro Nishimura⁴, Yoji Koike¹ (1. Tohoku Univ., 2. Sophia Univ., 3. RIKEN Nishina Center, 4. KEK-IMSS)
- [P19-SF2A-16] Attempts to realization of superconductivity in the bulk nickelate $\text{Nd}_{0.8}\text{Ca}_{0.2}\text{NiO}_2$
*Ryo Kirihara¹, Tomonori Miyatake^{1,2}, Sohei Endo¹, Masatomo Uehara¹ (1. Yokohama National University, 2. Research Fellow of Japan Society for the Promotion of Science)
- [P19-SF2A-17] Floquet topological superconductivity induced by chiral many-body interactions
*Sota Kitamura¹, Hideo Aoki^{1,2} (1. University of Tokyo, 2. AIST)
- [P19-SF2A-18] Electrochemical Tuning of $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ Superconducting Phase in Transistor-like Devices
*Aurelien Lagarrigue¹, Carolina De Dios¹, Salvatore Mesoraca¹, Vincent Humbert¹, Javier Briatico¹, Juan Trastoy¹, Javier Villegas¹ (1. Unite Mixte de Physique CNRS/Thales)
- [P19-SF2A-19] Evolution of electronic structure in vortex core predicted by the t - t' - J model
*Tingkuo Lee^{1,4,5}, Yi-Hsuan Liu^{1,2}, Wei-Lin Tu³, Gia-Wei Chern² (1. National Tsing Hua University, 2. University of Virginia, 3. Korea University, 4. National Sun Yat-Sen University, 5. Academia Sinica)
- [P19-SF2A-21] Search for Unconventional

- Superconductivity by Hydrogen Dose
*Mitsuhiko Maesato¹, Yuta Yamashita¹,
Hiroshi Kitagawa¹ (1. Kyoto University)
- [P19-SF2A-22] Ginzburg and Landau Strike Again –
Field Free Coherence Length
Measurements Using a Stiffnessometer
*Itay Mangel¹, Amit Keren¹, Nir Gavish¹,
Oded Kenneth¹ (1. Technion - Israel
Institute of Technology)
- [P19-SF2A-23] Search for superconductivity of La-X-H
ternary hydrides synthesized under high
temperature and high pressure
*Seiji Matsumoto¹, Natsumi Osaki¹, Misaki
Sasaki¹, Mari Einaga¹, Yuki Nakamoto¹,
Katsuya Shimizu¹, Saori Kawaguchi², Naohisa
Hirao², Yasuo Ohishi² (1. Osaka University,
2. JASRI/SPring-8)
- [P19-SF2A-24] External resonators and antennas for
the high- T_c superconducting terahertz
emitters
*Hidetoshi Minami¹, Yukino Ono¹, Yuma
Saito¹, Takuya Yuhara¹, Ryuta Kikuchi¹,
Takanari Kashiwagi¹, Manabu Tsujimoto²,
Kazuo Kadowaki¹ (1. University of Tsukuba,
2. AIST)
- [P19-SF2A-25] Fermi blockade of the strong electron-
phonon interaction in optimally doped
high temperature superconductors
*Andrey S Mishchenko¹, Igor S Tupitsyn²,
Naoto Nagaosa^{1,3}, Nikolay Prokof'ev² (1.
RIKEN, 2. University of Massachusetts, 3.
University of Tokyo)
- [P22-SF2A-19] Evidence for an ultranodal
superconducting state in $\text{FeSe}_{1-x}\text{S}_x$
*Takasada Shibauchi¹, Kohei Matsuura¹,
Mingwei Qiu¹, Qi Sheng², YiPeng Cai³, Kotaro
Yamakawa², Zurab Guguchia², R. Day³, K. M.
Kojima³, A. Damascelli³, Yuichi Sugimura¹,
Mikihiko Saito¹, Takaaki Takenaka¹, Kota
Ishihara¹, Yuta Mizukami¹, Kenichiro
Hashimoto¹, Y. Gu⁴, S. L. Guo⁴, L. C. Fu⁴, Z.
Zhang⁴, F. L. Ning⁴, G. Q. Zhao⁵, G. Y. Dai⁵, C.
Q. Jin⁵, J. W. Beare⁶ (1. University of Tokyo,
2. Columbia University, 3. University of
British Columbia, 4. Zhejiang University, 5.
Institute of Physics, Chinese Academy of
Sciences, 6. McMaster University)
- [P23-SF2A-10] Chiral superconductivity in UTe_2 probed
by anisotropic low-energy excitations
*Kota Ishihara¹, Masaki Roppongi¹, Masayuki
Kobayashi¹, Yuta Mizukami¹, Hironori Sakai²,
Yoshinori Haga², Kenichiro Hashimoto¹,
Takasada Shibauchi¹ (1. University of
Tokyo, 2. Japan Atomic Energy Agency)
- [P23-SF2B-71] **Electrical resistivity and
superconductivity of oxygen up to 200
GPa**
*Katsuya Shimizu¹, Yuki Kato¹, Yuki
Nakamoto¹ (1. Osaka University)
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- Poster
- [P19-SF2B] Poster 1 remote
9:00 PM - 11:00 PM Poster (Main Hall B)
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- [P19-SF2B-26] Surface States of Inter-Orbital
Superconductivity in Sr_2RuO_4
*Satoshi Ando¹, Keiji Yada¹, Yukio Tanaka¹,
Shun Tamura¹ (1. Department Applied
Physics, Nagoya University)
- [P19-SF2B-27] Development of novel photo-carrier
injection technique and creation of
photo-induced two-dimensional surface
superconductivity
*Bin Chen¹, Kenichiro Hashimoto², Motoi
Kimata³, Takahiko Sasaki³, Shu Seki¹, Hiroshi
M Yamamoto⁴, Masayuki Suda^{1,5} (1. Kyoto
University, 2. University of Tokyo, 3. Tohoku
University, 4. Institute for Molecular Science,
5. JST-PRESTO)
- [P19-SF2B-28] Effects of the Order Parameter
Anisotropy on the Vortex Lattice in
 UPt_3
K. E. Avers^{1,2}, W. J. Gannon^{1,3}, A. W. D.
Leishman⁴, L. DeBeer-Schmitt⁵, *W. P.
Halperin¹, Morten R Eskildsen¹ (1.
Department of Physics and Astronomy,
Northwestern University, Evanston, IL
60660, USA, 2. Center for Applied Physics
and Superconducting Technologies,
Northwestern University, Evanston, IL,
60660 USA, 3. Department of Physics and
Astronomy, University of Kentucky,
Lexington, KY 40506, USA, 4. Department of

Physics, University of Notre Dame, Notre Dame, IN 46556, USA, 5. Large Scale Structures Section, Neutron Scattering Division, Oak Ridge National Laboratory, Oak Ridge, TN 37831, USA)

- [P19-SF2B-29] Electronic structure for BaPtSb with Ordered Honeycomb Network under hydrostatic pressure
*Naoya Furutani¹, Yoshiaki Imai², Tsuyoshi Imazu³, Jun Goryo³ (1. Department of Applied Physics, Okayama University of Science, 2. Department of Physics, Okayama University of Science, 3. Department of Mathematics and Physics, Hirosaki University)
- [P19-SF2B-31] Investigating the superconducting order parameter of Sr₂RuO₄ with muon spin rotation and uniaxial stress
*Clifford Hicks¹, Vadim Grinenko³, Fabian Jerzembeck², Shreenanda Ghosh³, Yoshiteru Maeno⁴, Naoki Kikugawa⁵, Andrew Mackenzie², Hubertus Luetkens⁶, Hans-Henning Klauss² (1. University of Birmingham, 2. Max Planck Institute for Chemical Physics of Solids, Dresden, Germany, 3. Technische Universität Dresden, Dresden, Germany, 4. Kyoto University, Kyoto, Japan, 5. National Institute for Material Science, Tsukuba, Japan, 6. Paul Scherrer Institute, Villigen, Switzerland)
- [P19-SF2B-32] Charge Ordering and Superconducting State in β⁺-(BEDT-TTF)₄[(H₃O)Ga(C₂O₄)₃]·C₆H₅NO₂ Studied by STM/STS
*Koichi Ichimura¹, Hiroki Kokubo¹, Satoshi Tanda¹, Tohru Kurosawa², Migaku Oda², Hiroki Honma², Noriaki Matsunaga², Kazuto Moribe², Yoshihiko Ihara², Atsushi Kawamoto² (1. Department of Applied Physics, Hokkaido University, 2. Department of Physics, Hokkaido University)
- [P19-SF2B-33] Topological Anomalous Proximity Effect in Superconductor Hybrids
*Satoshi Ikegaya¹ (1. Nagoya University)
- [P19-SF2B-34] Possible Surface Superconductivity in the Nodal-Line Semimetallic

Superconductor NaAlSi

*Toshiya Ikenobe¹, Daigorou Hirai¹, Takahiro Yamada², Hisanori Yamane², Zenji Hiroi¹ (1. ISSP, Univ. of Tokyo, 2. IMRAM, Tohoku Univ.)

- [P19-SF2B-35] Acoustic response of the Fulde-Ferrell-Larkin-Ovchinnikov state
*Shusaku Imajo¹, Toshihiro Nomura¹, Yoshimitsu Kohama¹, Koichi Kindo¹ (1. Institute for Solid State Physics, The University of Tokyo)
- [P19-SF2B-36] The spontaneous spin polarization and the localized magnetization of the chiral superconductivity in the spin Hall metal
*Tsuyoshi Imazu¹, Jun Goryo¹ (1. Hirosaki University)
- [P19-SF2B-37] Criticality of a Fermi surface topological transition in Sr₂RuO₄ revealed by the stress-strain relationship
Hilary M. L. Noad¹, *Kousuke Ishida¹, You-Sheng Li¹, Veronika Stangier², Naoki Kikugawa³, Dmitry A. Sokolov¹, Michael Nicklas¹, Markus Garst², Jörg Schmalian², Andrew P. Mackenzie^{1,4}, Clifford W. Hicks^{1,5} (1. Max-Planck-Institute for Chemical Physics of Solids, 2. Karlsruhe Institute of Technology, 3. National Institute for Materials Science, 4. University of St Andrews, 5. University of Birmingham)
- [P19-SF2B-38] Mixing of Singlet and Triplet Order Parameters in the Fulde-Ferrell-Larkin-Ovchinnikov State in Quasi-One-Dimensional Superconductors
*Katsumi Itahashi¹, Hiroshi Shimahara² (1. Sojo University, 2. Hiroshima University)
- [P19-SF2B-39] Magnetic-field-induced Polarity Oscillation of the Superconducting Diode Effect
*Ryo Kawarazaki¹, Hideki Narita¹, Yuta Miyasaka¹, Yuhei Ikeda², Ryusuke Hisatomi¹, Akito Daido², Youichi Shiota¹, Takahiro Moriyama¹, Youichi Yanase^{2,3}, Alexey V Ognev⁶, Alexander S Samardak⁶, Teruo Ono^{1,4,5,6} (1. Institute for Chemical

Research, Kyoto University, Gokasho, Uji, Kyoto, 611-0011, Japan, 2. Department of Physics, Graduate School of Science, Kyoto University, Kitashirakawa, Sakyo, Kyoto 606-8502, Japan, 3. Institute for Molecular Science, Okazaki, 444-8585, Japan, 4. Center for Spintronics Research Network, Graduate School of Engineering Science, Osaka University, Machikaneyama 1-3, Toyonaka, Osaka 560-8531, Japan, 5. Center for Spintronics Research Network, Institute for Chemical Research, Kyoto University, Gokasho, Uji, Kyoto, 611-0011, Japan, 6. Laboratory of Spin-Orbitronics, Institute of High Technologies and Advanced Materials, Far Eastern Federal University, Vladivostok 690922, Russia)

- [P19-SF2B-40] S/N junctions with strong spin-orbit coupling
*Stefan Kirchner^{1,2}, Vivek Mishra³, Shao-Pin Chiu^{1,2}, Yu Li³, Fu-Chun Zhang^{3,4,5}, Juhn-Jong Lin^{1,2} (1. Department of Electrophysics, National Yang Ming Chiao Tung University, Hsinchu 30010, Taiwan, 2. Center for Emergent Functional Matter Science, National Yang Ming Chiao Tung University, Hsinchu 30010, Taiwan, 3. Kavli Institute for Theoretical Sciences, University of Chinese Academy of Sciences, Beijing 100190, China, 4. CAS Center for Excellence in Topological Quantum Computation, University of Chinese Academy of Sciences, Beijing 100190, China, 5. HKU-UCAS Joint Institute of Theoretical and Computational Physics at Beijing, University of Chinese Academy of Sciences, Beijing 100190, China)
- [P19-SF2B-41] Stability of Time-Reversal Symmetry Breaking State by applying Magnetic Field in Inhomogeneous Superconductivity
*Kouki Otsuka¹, Shingo Haruna¹, Hirono Kaneyasu¹ (1. University of Hyogo)
- [P19-SF2B-42] Enhanced Superconductivity in Close Proximity to Polar-Nonpolar Structural Phase Transition in Chemically Doped PtBi₂

Kensuke Takaki¹, Tetsuya Takeuchi¹, Masamichi Nakajima¹, *Kazutaka Kudo¹ (1. Osaka University)

- [P19-SF2B-44] Electronic and Magnetic properties of organic conductor (DMET-TTF)2AuBr2 at high pressure
*Shigen Kumagai¹, Taiga Kato¹, Hanming Ma², Youhei Iida¹, Yoshiaki Sasaki¹, Masashi Sawada¹, Jun Gouchi², Takuya Kobayashi³, Hiromi Taniguchi³, Yoshiya Uwatoko², Hiroyasu Sato⁴, Noriaki Matsunaga¹, Atsushi Kawamoto¹, Kazushige Nomura¹ (1. Hokkaido Univ., 2. Tokyo Univ., 3. Saitama Univ., 4. Rigaku corporation)
- [P19-SF2B-45] Overactivated transport in the localized phase of the superconductor-insulator transition
Vincent Humbert², Miguel Ortuño³, Andres M. Somoza³, Laurent Bergé¹, Louis Dumoulin¹, *Claire Akiko Marrache-Kikuchi¹ (1. Université Paris-Saclay, CNRS, IJCLab, 91405, Orsay, France., 2. Université Paris-Saclay, CNRS, Thales, Unité mixte de physique CNRS/Thales, 91767, Palaiseau, France., 3. Departamento de Física - CIOyN, Universidad de Murcia, Murcia 30071, Spain)
- [P19-SF2B-46] Point contact spectroscopy of superconducting nodal line semimetal CaAg_{0.9}Pd_{0.1}P
*Naoki Matsubara¹, Shota Nagasaka¹, Rikizo Yano¹, Kazushige Saigusa¹, Yusaku Shinoda¹, Yoshihiko Okamoto¹, Koshi Takenaka¹, Satoshi Kashiwaya¹ (1. Nagoya University)
- [P19-SF2B-47] Role of the dimerization in a quasi-one-dimensional organic conductor
*Noriaki Matsunaga¹, Youhei Iida¹, Taiga Kato¹, Masashi Sawada¹, Yoshiaki Sasaki¹, Takaaki Minamidate^{1,2}, Hiroyoshi Nobukane¹, Atsushi Kawamoto¹, Kazushige Nomura¹ (1. Hokkaido University, 2. Tokyo University of Science)
- [P19-SF2B-48] η-pairing on triangular lattice
*Yutaro Mitsu¹, Shun Tamura², Yukio Tanaka², Shintaro Hoshino¹ (1. Saitama Univ., 2. Nagoya Univ.)

- [P19-SF2B-49] Bogoliubov Fermi surfaces under the magnetic field
*Tatsuaki Mori¹, Hiroshi Watanabe¹, Hiroaki Ikeda¹ (1. Ritsumeikan university)
- [P19-SF2B-50] Supercurrent diode effect in few-layer NbSe₂ nanowires
*Lorenz Bauriedl¹, Christian Bäuml¹, Lorenz Fuchs¹, Christian Baumgartner¹, Nicolas Paulik¹, Jonas Bauer¹, Kai-Qiang. Lin¹, John Lupton¹, Takashi Taniguchi², Kenji Watanabe², Christoph Strunk¹, Nicola Paradiso¹ (1. Institut für Experimentelle und Angewandte Physik, University of Regensburg, Regensburg, Germany, 2. International Center for Materials Nanoarchitectonics, National Institute for Materials Science, Tsukuba, Japan)
- [P19-SF2B-51] Exploring Applications of Graphene-Based Josephson Junctions
*Emily Rose Gamblen^{1,2}, Jonathan Prance¹, Michael Thompson¹, Max Taylor^{1,2}, Roman Gorbachev², Wendong Wang², David Perello^{2,3} (1. Lancaster University, Lancaster LA1 4YB, UK, 2. National Graphene Institute, University of Manchester, Manchester M13 9PL, UK, 3. Quantum Hardware Team, Amazon Web Services, Pasadena CA 91125, USA)
- [P19-SF2B-52] Measurement of in-plane conductivity of the interface state formed at the junction between metal and multi-layered MoS₂
Aya Hamamoto¹, Akira Endo², Shingo Katsumoto², *Ryosuke Ishiguro¹ (1. Japan Women's University, 2. The University of Tokyo)
- [P19-SF2B-53] Wide-range T^2 resistivity and umklapp scattering in moire graphene
*Hiro Ishizuka¹, Leonid Levitov² (1. Tokyo Institute of Technology, 2. Massachusetts Institute of Technology)
- [P19-SF2B-54] **Second harmonic transport under time reversal symmetry in trigonal superconductor PbTaSe₂**
*Yuki Itahashi¹, Toshiya Ideue¹, Shintaro Hoshino², Chihiro Goto¹, Hiromasa Namiki³, Takao Sasagawa³, Yoshihiro Iwasa^{1,4} (1. University of Tokyo, 2. Saitama University, 3. Tokyo Institute of Technology, 4. RIKEN CEMS)
- [P19-SF2B-56] Characterization of element substituted Transition metal chalcogenide CuTe
*Shogo Kuwahara¹ (1. Nihon University)
- [P19-SF2B-57] Superconducting properties in Se-doped PtBi₂ thin films
*Masaki Maeda¹, Masashi Tokuda¹, Ryoya Nakamura¹, Mori Watanabe¹, Kensuke Takaki¹, Kazutaka Kudo¹, Yasuhiro Niimi^{1,2} (1. Department of Physics, Osaka University, 2. Center for Spintronics Research Network, Osaka University)
- [P19-SF2B-58] Two-gap Ising superconductivity from Coulomb interactions in monolayer NbSe₂
*Magdalena Marganska¹, Sebastian Hoerhold¹, Juliane Graf¹, Milena Grifoni¹ (1. University of Regensburg)
- [P19-SF2B-59] Collective-mode Emission from Photodriven Superconducting-interface in Charge Density Wave System
*Yukihiko Matsubayashi¹ (1. Tohoku University)
- [P19-SF2B-60] **Electronic band structure inside the superconducting gap from Yu-Shiba-Rusinov states in quasi two-dimensional NbSe_{2-x}S_x**
*Jose Antonio Moreno¹, Edwin Herrera^{1,2,3}, Victor Barrera¹, Anita Smeets¹, Samuel Mañas⁴, Eugenio Coronado⁴, José Jaime Baldoví^{4,5}, Isabel Guillamón¹, Hermann Suderow¹ (1. Laboratorio de Bajas Temperaturas y Altos Campos Magnéticos, Departamento de Física Materia Condensada, Instituto Nicolás Cabrera and IFIMAC UAM-CSIC, Universidad Autónoma de Madrid, Madrid, Spain, 2. Departamento de Física, Universidad Nacional de Colombia, Bogotá, Colombia., 3. Facultad de Ingeniería y Ciencias Básicas, Universidad Central, Bogotá, Colombia., 4. Instituto de Ciencia Molecular (ICMol), Universidad de Valencia, Catedrático José Beltrán 2, 46980 Paterna, Spain, 5. Max Planck Institute for

the Structure and Dynamics of Matter,
Luruper Chaussee 149, D-22761 Hamburg,
Germany)

Engineering, Shibaura Institute of
Technology)

- [P19-SF2B-61] Exploration of Superconductivity in NiTe₂ and Related Compounds
Masahiro Matsushita¹, Tatsuya Yamakawa¹,
*Minoru Nohara¹ (1. Hiroshima University)
- [P19-SF2B-62] Time-reversal symmetry breaking superconductivity in monolayer transition-metal dichalcogenides
*Rikuto Oiwa¹, Yuki Yanagi², Hiroaki Kusunose¹ (1. Meiji Univ., 2. Toyama Prefectural Univ.)
- [P19-SF2B-63] Creation of Novel Layered Superconductor with Molecular Chirality
*Ichiro Oya¹ (1. Kyoto University)
- [P19-SF2B-64] Coherent photogalvanic effect in two-dimensional fluctuating superconductors
Vadim Kovalev¹, *Kabyashree Sonowal^{2,3}, Ivan Savenko^{2,3} (1. Novosibirsk State Technical University, Novosibirsk, Russia, 2. Center for Theoretical physics of complex systems (PCS), Institute for Basic Science (IBS), Daejeon, Korea, 3. University of Science and Technology (UST), Daejeon, Korea)
- [P19-SF2B-65] **Single crystal growth and specific heat measurement of Se substituted 1T-TaS₂**
*Teppei Suzuki¹ (1. Nihon university)
- [P19-SF2B-66] Evaluation of BKT phase transition in 2H-NbS₂ flake
*Tianshun Xie¹, Kohei Sakanashi¹, Kazushi Yokoi¹, Keiji Ueno², Nobuyuki Aoki¹ (1. Chiba University, 2. Saitama University)
- [P19-SF2B-67] **Comparison of Effective Magnetic Moment on Impurity Substitution Dependence of Eu_{2-x}Ce_xCu_{1-y}(Zn,Ni,Fe)_yO₄**
*Muhammad Abdan Syakur^{1,2}, Atiek Rostika Noviyanti², Utami Widayawati¹, Dita Puspita Sari⁴, Togar Saragi³, Isao Watanabe^{1,2}, Risdiana Risdiana³ (1. Meson Science Laboratory, RIKEN Nishina Centre, 2. Department of Chemistry, Padjadjaran University, 3. Department of Physics, Padjadjaran University, 4. College of

Poster

[P19-SF3A] Poster 1 remote
9:00 PM - 11:00 PM Poster (Main Hall B)

- [P19-SF3A-01] Ferromagnetic Quantum Critical Point in a Ni_{1-x}Rh_x Alloy with x = 0.375
*Chien-Lung Huang¹, R.-Z. Lin¹ (1. National Cheng Kung University)
- [P19-SF3A-02] Analysis of anomalous transport properties of LaCaMnO manganites and relation to the theoretical formula of high-Tc cuprates
*Ikuzo Kanazawa¹, Taku Hashimoto¹ (1. Department of Physics, Tokyo Gakugei University)
- [P19-SF3A-03] Unique itinerant ferromagnetism in 4d-electron system Ca₂RuO₄
*Fumihiko Nakamura¹ (1. Kurume Institute of technology)
- [P19-SF3A-04] Single crystal growth and magnetism of YbCu₄Au
*Takanori Taniguchi¹, Kotaro Osato¹, Yusuke Nambu^{1,2}, Yoichi Ikeda¹, Jun Gouchi³, Yoshiya Uwatoko³, Shunichiro Kittaka⁴, Toshiro Sakakibara³, Dita Puspita Sari^{5,6}, Isao Watanabe⁵, Akihiro Koda⁷, Masaki Fujita¹ (1. Tohoku University, 2. Japan Science and Technology Agency, 3. The University of Tokyo, 4. Chuo University, 5. RIKEN Nishina Center, 6. Shibaura Institute of Technology, 7. High Energy Accelerator Research Organization)
- [P19-SF3A-05] Hyperfine interactions at ultra-low temperatures: their role in PrOs₄Sb₁₂
*Femke Bangma¹, Lev Levitin², Marijn Lucas², Andrew Casey², Jan Nyeki², Stephen Julian³, John Saunders², Alix McCollam¹ (1. High Field Magnet Laboratory (HFML-FELIX), Radboud University, 2. Royal Holloway, University of London, 3. University of Toronto)
- [P19-SF3A-06] Magnetic phase transition in TbAl₃(BO₃)₄ below 700 mK - quantum and classical features

- Tatiana Zajarniuk¹, *Andrzej Szewczyk¹,
Piotr Wisniewski², Maria U. Gutowska¹,
Roman Puzniak¹, Henryk Szymczak¹, Irina
Gudim³, Vladimir A. Bedarev⁴, Piotr Tomczak⁵
(1. Institute of Physics, Polish Academy of
Sciences, Warsaw, Poland, 2. Institute of
Low Temperature and Structure Research,
Polish Academy of Sciences, Wroclaw,
Poland, 3. Kirensky Institute of Physics,
Federal Research Center KSC SB RAS,
Krasnoyarsk, Russia, 4. B. Verkin Institute
for Low Temperature Physics and
Engineering of the National Academy of
Sciences of Ukraine, Kharkiv, Ukraine, 5.
Faculty of Physics, Adam Mickiewicz
University, Poznan, Poland)
- [P19-SF3A-07] Field-angle-resolved Specific-heat
Measurements of YbRh₂Si₂
*Yohei Kono¹, Gérard Lapertot², Yusei
Shimizu³, Dai Aoki³, Toshiro Sakakibara⁴,
Shunichiro Kittaka¹ (1. Chuo University, 2.
CEA-Grenoble, 3. Tohoku University, 4.
University of Tokyo)
- [P19-SF3A-08] Triplet exciton condensation in Sr₃Ir₂O₇
*Hidemaro Suwa¹, Shang-Shun Zhang²,
Cristian Daniel Batista² (1. The University
of Tokyo, 2. The University of Tennessee)
- [P19-SF3A-11] **Metal-Insulator Transitions at 25 Å
Periodic Thickness on CaRuO₃**
*Masahito Sakoda¹, Hiroyoshi Nobukane¹,
Shuhei Shimoda¹, Satoshi Tanda¹ (1.
Hokkaido university)
- [P19-SF3A-12] The thermal properties and the nature
of the interaction in DyAl₃(BO₃)₄
aluminoborate of rare earths
*Tatiana Zajarniuk¹, Szewczyk Andrzej¹,
Maria Urszula Gutowska¹, Wojciech
Szuskiewicz¹, Ovidiu Florea², Elsa Lhotel²,
Sylvain Petit³, Eric Ressouche⁴, Henryk
Szymczak¹, Roman Puzniak¹, Andrei
Prokhorov⁵ (1. Institute of Physics, Polish
Academy of Sciences, Warsaw 02 668,
Poland, 2. Institut Néel, CNRS & Université
Grenoble Alpes, Grenoble 38 042, France, 3.
Laboratoire Leon Brillouin, CEA-Saclay 91
191, France, 4. Université Grenoble Alpes
- CEA, IRIG, MEM, MDMF, Grenoble 38 054,
France, 5. Institute of Physics, AS CR, Praha
182 21, Czech Republic)
- [P19-SF3A-13] Exploration of multiferroic quantum
phase transition in TbMnO₃
*Sanne Kristensen¹, Geetha Balakrishnan²,
Alix McCollam¹ (1. Radboud University, 2.
Warwick University)
- [P19-SF3A-14] Microscopic Study of Magnetism of
α-Mn by ⁵⁵Mn Nuclear Magnetic
Resonance
*Masahiro Manago¹, Gaku Motoyama¹,
Kiyotaka Miyoshi¹, Shijo Nishigori², Kenji
Fujiwara¹, Kazuto Akiba³, Shingo Araki³,
Tatsuo C. Kobayashi³, Hisatomo Harima⁴ (1.
Department of Physics and Material Science,
Shimane University, 2. ICSR, Shimane
University, 3. Graduate School of Natural
Science and Technology, Okayama University,
4. Department of Physics, Kobe University)
- [P19-SF3A-15] Stress-induced ferroelectricity in
quantum paraelectric SrTiO₃ observed
by birefringence imaging
*Hiroataka MANAKA¹, Koki UETSUBARA¹, Yoko
MIURA² (1. Kagoshima University, 2.
National Institute of Technology, Suzuka
College)
- [P19-SF3A-16] Tuning of Kondo effect by electron and
hole doping in the honeycomb Kondo
lattice compound CePt₆Al₃
*Ryohei Oishi¹, Kazunori Umeo², Takahiro
Onimaru¹, Toshiro Takabatake¹ (1.
Graduate School of Advanced Science and
Engineering, Hiroshima Univ., 2. N-BARD,
Hiroshima Univ.)
- [P19-SF3A-17] Structural Analysis of CeCoSi under
Pressure
*Alisha Nurshafiqah Binti Amat Dalan¹, Kota
Saito¹, Kakeru Ikeda¹, Hiroshi Tanida²,
Junichi Hayashi¹, Keiki Takeda¹, Chihiro
Sekine¹, Yukihiro Kawamura¹ (1. Muroran
Institute of Technology, 2. Liberal Arts and
Sciences, Toyama Prefectural University)
- [P19-SF3A-18] Elastic properties of Cantor-alloy-type
random magnet Cr_{0.8}CoNi
*Mai Watanabe¹, Brian Sales², Tadataka

- Watanabe¹ (1. Nihon university, 2. Oak Ridge National Laboratory)
- [P19-SF3A-19] Crystal structure and resistivity of CeCoSi at low temperatures and under pressures
*Kakeru Ikeda¹, Alisha Nurshafiqah Binti Amat Dalan¹, Junichi Hayashi¹, Keiki Takeda¹, Chihiro Sekine¹, Takeshi Matsumura², Jun Gouchi³, Yoshiya Uwatoko³, Takahiro Tomita³, Hiroki Takahashi⁴, Hiroshi Tanida⁵, Yukihiro Kawamura¹ (1. Muroran Institute of Technology, 2. Department of Quantum Matter, AdSE, Hiroshima University, 3. Institute for Solid State Physics, the University of Tokyo, 4. College of Humanities and Science, Nihon University, 5. Liberal Arts and Sciences, Toyama Prefectural University)
- [P19-SF3A-20] Quantum critical phenomena in heavy fermion compound YbCu₄Ni
*Kotaro Osato¹, Takanori Taniguchi¹, Yoichi Ikeda¹, Yusuke Nambu^{1,2}, Jun Gouchi³, Yoshiya Uwatoko³, Dita Puspita Sari^{4,5}, Isao Watanabe⁴, Akihiro Koda⁶, Masaki Fujita¹ (1. Tohoku University, 2. Japan Science and Technology Agency, 3. The University of Tokyo, 4. RIKEN Nishina Center, 5. Shibaura Institute of Technology, 6. High Energy Accelerator Research Organization)
- [P19-SF3A-21] Pressure Effect on Thermal Properties in Valence Fluctuating Material EuPd₂Si₂
*Shijo Nishigori¹ (1. Shimane University)
- [P19-SF3A-22] Analysis of the electronic state of the organic conductor (EDO-TTF-I)₂ClO₄ on the basis of the first-principles calculation
*Taiki Kawamura¹, Kenichiro Hashimoto², Kazuyoshi Yoshimi³, Manabu Ishikawa⁴, Yoshiaki Nakano⁴, Akihiro Otsuka⁴, Hideki Yamochi⁴, Rie Haruki⁵, Reiji Kumai⁵, Shin-ichi Adachi⁵, Akito Kobayashi¹ (1. Nagoya Univ., 2. Univ. of Tokyo, 3. ISSP, 4. Kyoto Univ., 5. IMSS KEK)
- [P19-SF3A-23] Neutron scattering measurement of antiferromagnet U₂Pt₆Ga₁₅
*Yuji Matsumoto¹, Kyugo Ota¹, Chihiro Tabata², Koji Kaneko³, Yoshinori Haga⁴ (1. Univ. of Toyama, 2. Kyoto Univ., 3. JAEA MSRC, 4. JAEA ASRC)
- [P19-SF3A-24] Crystal structure, x-ray absorption and magnetic properties of heavy fermion Ce₂Pt₆Al₁₅ and Ce₂Pt₆Al₁₂Si₃
*Kyugo Ota¹, Yuki Watabe¹, Yoshinori Haga², Keisuke Hatada¹, Iesari Fabio³, Toshihiro Okajima³, Yuji Matsumoto¹ (1. Graduate School of Science and Engineering, University of Toyama, 2. Advanced Science Research Center, Japan Atomic Energy Agency, 3. Aichi Synchrotron Radiation Center)
- [P19-SF3A-25] Thermopower of heavy fermion compounds YbT₂Zn₂₀ (T = Co, Rh)
Kazuki Kudo¹, Yudai Suzuki¹, Masato Hedo², Yoshiya Uwatoko³, *Kazuyuki Matsubayashi¹ (1. UEC, 2. Univ. of Ryukyus, 3. ISSP)
- [P19-SF3A-26] **High-field magnetism of the spin-1/2 two-leg ladder Cu(DEP)Cl₂**
*Taiki Morimoto¹, Takanori Kida¹, Yasuo Narumi¹, Zentaro Honda², Koichi Kindo³, Masayuki Hagiwara¹ (1. AHMF, Grad. Sch. of Sci., Osaka Univ., 2. Grad. Sch. of Sci. Eng., Saitama Univ., 3. ISSP, The Univ. of Tokyo)
- [P19-SF3A-27] Doped Mott insulator on the Penrose lattice
*Shiro Sakai¹ (1. RIKEN)
- [P19-SF3A-28] Single-Site Low-Temperature Properties in Diluted Nd Compounds Y_{1-x}Nd_xCo₂Zn₂₀ for x < 0.1
*Rikako Yamamoto¹, Yasuyuki Shimura¹, Kazunori Umeo¹, Toshiro Takabatake¹, Takahiro Onimaru¹ (1. Hiroshima Univ.)
- [P19-SF3A-29] Pressure Effect on the Antiferromagnetic Order in 4f³ Cubic Compounds NdTr₂Zn₂₀ (Tr = Co, Rh, and Ir)
*Kazunori Umeo¹, Rikako Yamamoto², Daisuke Katoh³, Makoto Adachi³, Toshiro Takabatake², Takahiro Onimaru² (1. Integrated Experimental Support/Research Division, N-BARD, Hiroshima University, 2. Graduate School of Advanced Science and Engineering, Hiroshima University, 3. Department of Quantum Matter, AdSM,

- Hiroshima University)
- [P19-SF3A-30] Possibility of Two-Channel Kondo Effect in $\text{NdNb}_2\text{Al}_{20}$
*Tomohiko Kuwai¹ (1. University of Toyama)
- [P19-SF3A-31] Non-Kramers Crystalline-Electric-Field Doublet-Triplet Excitation and Slow Dynamics in $\text{PrNb}_2\text{Al}_{20}$ Studied by Nuclear Magnetic Resonance
*Tetsuro Kubo¹, Hideki Tou², Hisashi Kotegawa², Hisatomo Harima², Ryuji Higashinaka³, Akihiro Nakama³, Yuji Aoki³, Hideyuki Sato³, Yoshihiko Ihara⁴, Takayuki Goto⁵, Michihiro Hirata⁶, Takahiko Sasaki⁶
(1. Okayama University of Science, 2. Kobe University, 3. Tokyo Metropolitan University, 4. Hokkaido University, 5. Sophia University, 6. Tohoku University)
- [P19-SF3A-32] **Change in the Ground State of $\text{Y}_{1-x}\text{Pr}_x\text{Ir}_2\text{Zn}_{20}$ due to Quadrupolar Kondo Effect with Pr Concentration x**
*Ruo Hibino¹, Tatsuya Yanagisawa¹, Yoshito Mikami¹, Hiroyuki Hidaka¹, Hiroshi Amitsuka¹, Sergei Zherlitsyn², Joachim Wosnitza^{2,3}, Yu Yamane⁴, Takahiro Onimaru⁵ (1. Hokkaido Univ., 2. Hochfeld-Magnetlabor Dresden (HLD-EMFL), 3. Technische Universität Dresden, 4. Univ. of Hyogo, 5. Hiroshima Univ.)
- [P19-SF3A-33] Intrinsic instabilities in weakly interacting Anderson Insulator
*Tai Kai Ng¹, Yat Fan Lau¹ (1. Hong Kong University of Science and technology)
- [P19-SF3A-34] Phase Degree of Freedom in Multiple-Q Spin Textures
*Kotaro Shimizu¹, Shun Okumura¹, Yasuyuki Kato¹, Yukitoshi Motome¹ (1. University of Tokyo)
- [P19-SF3A-35] Constructing effective anisotropic spin models for multiple-Q states by symmetry argument and microscopic analysis
*Ryota Yambe¹, Satoru Hayami¹ (1. The University of Tokyo)
- [P19-SF3A-36] Skyrmion crystal in a centrosymmetric bilayered system consisting of ferromagnetic and antiferromagnetic layers
*Kazuki Okigami¹, Ryota Yambe¹, Satoru Hayami¹ (1. The University of Tokyo)
- [P19-SF3A-37] Crystal growth and electromagnetic properties of GdOs_2Si_2
*Hiroaki Hayashi¹, Hiroyuki K Yoshida², Hiroya Sakurai¹, Naoki Kikugawa¹, Kazunari Yamaura¹ (1. National Institute for Materials Science (NIMS), 2. Hokkaido Univ.)
- [P19-SF3A-38] Emergent toroidal moment and nonreciprocal electrodynamics of a magnetic hopfion
*Yizhou Liu¹, Naoto Naogaosa^{1,2} (1. RIKEN, 2. University of Tokyo)
- [P19-SF3A-39] Multiple-step topological phase transitions in a centrosymmetric tetragonal magnet GdRu_2Ge_2
*Haruto Yoshimochi¹, Rina Takagi^{1,2,3,4}, Satoru Hayami^{1,3}, Jiwon Ju⁵, Nguyen Duy Khanh⁴, Hikaru Saito⁵, Hajime Sagayama⁶, Hironori Nakao⁶, Taka-hisa Arima^{4,7}, Yoshinori Tokura^{1,4,8}, Taro Nakajima^{4,5}, Shinichiro Seki^{1,2,3,4} (1. Department of Applied Physics, University of Tokyo, Tokyo 113-8656, Japan, 2. Institute of Engineering Innovation, University of Tokyo, Tokyo 113-0032, Japan, 3. PRESTO, Japan Science and Technology Agency (JST), Kawaguchi 332-0012, Japan, 4. RIKEN Center for Emergent Matter Science (CEMS), Wako 351-0198, Japan, 5. The Institute for Solid State Physics, University of Tokyo, Kashiwa, Chiba 277-0882, Japan, 6. Institute of Materials Structure Science, High Energy Accelerator Research Organization, Tsukuba 319-1195, Japan, 7. Department of Advanced Materials Science, University of Tokyo, Kashiwa 277-8561, Japan, 8. Tokyo College, The University of Tokyo, Tokyo 113-8656, Japan)
- [P19-SF3A-40] Diverse magnetic phase diagrams in breathing pyrochlore chromium spinel sulfides
*Masaki Gen^{1,2,3}, Hajime Ishikawa¹, Akihiko Ikeda¹, Atsushi Miyake¹, Zhuo Yang¹,

- Yoshihiko Okamoto^{1,4}, Masaki Mori⁴, Koshi Takenaka⁴, Hajime Sagayama⁵, Takashi Kurumaji², Yusuke Tokunaga², Taka-hisa Arima^{2,3}, Masashi Tokunaga¹, Koichi Kindo¹, Yasuhiro H. Matsuda¹, Yoshimitsu Kohama¹
(1. Institute for Solid State Physics, University of Tokyo, 2. Department of Advanced Materials Science, University of Tokyo, 3. RIKEN Center for Emergent Matter Science (CEMS), 4. Department of Applied Physics, Nagoya University, 5. Institute of Materials Structure Science, High Energy Accelerator Research Organization)
- [P19-SF3A-41] Zero-field Skyrmion-based chiral order in breathing-kagome antiferromagnets
*Kazushi Aoyama¹, Hikaru Kawamura² (1. Osaka University, 2. Kobe University)
- [P19-SF3A-42] Photocontrol of spin scalar chirality in centrosymmetric itinerant magnets
*Atsushi Ono¹, Yutaka Akagi² (1. Tohoku Univ., 2. Univ. of Tokyo)
- [P19-SF3A-43] **Topological Transformation of Magnetic Skyrmions via Thermal Current**
*Fehmi Sami Yasin¹, Jan Masell^{2,1}, Kosuke Karube¹, Daisuke Shindo¹, Yasujiro Taguchi¹, Yoshinori Tokura^{1,3,4}, Xiuzhen Yu¹ (1. RIKEN Center for Emergent Matter Science (CEMS), Wako, Japan, 2. Institute of Theoretical Solid State Physics, Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany, 3. Department of Applied Physics, University of Tokyo, Tokyo, Japan, 4. Tokyo College, University of Tokyo, Tokyo, Japan)
- [P19-SF3A-44] Antiskyrmion formation and tunable magnetic anisotropy in Pd-doped (Fe,Ni)₃P with S₄ symmetry
*Kosuke Karube¹, Licong Peng¹, Jan Masell^{1,2}, Mamoun Hemmida³, Hans-Albrecht Krug von Nidda³, István Kézsmárki³, Fumitaka Kagawa^{1,4}, Xiuzhen Yu¹, Yoshinori Tokura^{1,4,5}, Yasujiro Taguchi¹ (1. RIKEN Center for Emergent Matter Science (CEMS), 2. Institute of Theoretical Solid State Physics, Karlsruhe Institute of Technology (KIT), 3. Experimental Physics V, University of Augsburg, 4. Department of Applied Physics, University of Tokyo, 5. Tokyo College, University of Tokyo)
- [P19-SF3A-45] Numerical simulation study of magnetic skyrmion-string dynamics in stepped samples
*Wataru Koshibae¹, Naoto Nagaosa^{1,2} (1. RIKEN Center for Emergent Matter Science (CEMS), 2. Department of Applied Physics, The University of Tokyo)
- [P19-SF3A-46] Scaling up of Rb triangular arrays for quantum simulation
*An QU¹, Weikun Tian¹, Wen Jun Wei², Billy Jun Ming Lim¹, Vanessa Koh², Huanqian Loh^{1,2} (1. Centre for Quantum Technologies, National University of Singapore, 117543, Singapore, 2. Department of Physics, National University of Singapore, 117542, Singapore)
- [P23-SF3A-40] Giant Peltier conductivity in an uncompensated semimetal Ta₂PdSe₆
*Akitoshi Nakano¹, Ai Yamakage¹, Urara Maruoka¹, Yukio Yasui², Ichiro Terasaki¹ (1. Nagoya Univ., 2. Meiji Univ.)
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- Poster
- [P19-SF3B] Poster 1 remote
9:00 PM - 11:00 PM Poster (Main Hall B)
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- [P19-SF3B-01] Topological Hall effect in ferromagnetic and antiferromagnetic skyrmion systems: A real-space calculation
*Takuya Nomoto¹, Akira Matsui¹, Ryotaro Arita^{1,2} (1. The University of Tokyo, 2. RIKEN CEMS)
- [P19-SF3B-02] Tb doping impacts on magnetism and emergent inductance of YMn₆Sn₆
*Aki Kitaori¹, Jonathan S White², Victor Ukleev², Naoya Kanazawa¹, Deepak Singh², Yuki Furukawa¹, Taka-hisa Arima³, Naoto Nagaosa^{1,4}, Yoshinori Tokura^{1,4,5} (1. Dept. of Applied Physics, Univ. of Tokyo, 2. Paul Scherrer Institut, 3. Dept. of Advanced Materials Science, Univ. of Tokyo, 4. RIKEN CEMS, 5. Tokyo College, Univ. of Tokyo)
- [P19-SF3B-03] Infrared Magneto Optical Kerr Effect Measurement by Synchrotron Radiation
*Satoshi Iguchi¹, Yuka Ikemoto², Hiroki

Kobayashi¹, Hideaki Kitazawa³, Hirotake Ito⁴,
Shinichiro Iwai⁴, Taro Moriwaki², Takahiko
Sasaki¹ (1. Institute for Materials Research,
Tohoku University, 2. Japan Synchrotron
Radiation Research Institute, SPring-8, 3.
National Institute for Materials Science, 4.
Department of Physics, Tohoku University)

[P19-SF3B-04] **Elastic anomalies associated with
multiple magnetic-phase transitions in
EuAl₄ proved by ultrasonic
measurements**

*Takuto Satou¹, Kazuhei Wakiya¹, Mituteru
Nakamura¹, Masahito Yoshizawa¹, Masato
Hedo², Yoshiki Nakanishi¹, Ai Nakamura² (1.
Iwate Univ., 2. Ryukyu Univ.)

[P19-SF3B-05] Effects on the glassy phase of Ca₃Co₂O₆
through Mg and Bi substitution

*GAJENDRA SINGH BISHT¹, Dilip Pal¹ (1.
Department of Physics, Indian Institute of
Technology Guwahati, Guwahati, 781039,
Assam, India)

[P19-SF3B-06] Evolution of the spin reorientation
temperature of NdCrO₃ by Pr and Eu
substitutions

*Pragya Gupta¹, Dilip Pal¹ (1. Department of
Physics, Indian Institute of Technology
Guwahati, Guwahati, Assam, 781039, India)

[P19-SF3B-07] Compass-like manipulation of electronic
structure in Sr₃Ru₂O₇

*Masahiro Naritsuka^{2,1}, Izidor Benedičič²,
Luke C Rhodes², Carolina A Marques²,
Christopher Trainer², Zhiwei Li³, Alexander C
Komarek³, Andrew P Mackenzie^{3,2}, Peter
Wahl² (1. Institute of Physical and Chemical
Research (RIKEN), 2. University of St
Andrews, 3. Max Planck Institute)

[P19-SF3B-08] Ferromagnetic state in NbSe₂ at van der
Waals interface

*Hideki Matsuoka¹, Tetsuro Habe², Yoshihiro
Iwasa³, Mikito Koshino⁴, Masaki Nakano³ (1.
RIKEN CEMS, 2. Kyoto University of Advanced
Science, 3. The University of Tokyo, 4. Osaka
University)

[P19-SF3B-09] Fabrication and magnetotransport
properties of LnRuO₃ (Ln = La, Nd)

single crystalline thin films

*Lingfei Zhang¹, Takahiro C. Fujita¹, Masashi
Kawasaki^{1,2} (1. Department of Applied
Physics and Quantum Phase Electronics
Center, The University of Tokyo, 2. RIKEN
Center for Emergent Matter Science
(CEMS))

[P19-SF3B-10] **Magnetotransport properties of
itinerant antiferromagnets Ba_{1-x}
K_xMn₂As₂ with weak ferromagnetism**

*Yuto Hoshino¹, Takuya Aoyama¹, Yoshinori
Imai¹, Kenya Ohgushi¹ (1. Tohoku Univ.)

[P19-SF3B-11] Structural and Magnetic phase diagram
of pseudo quaternary alloys (Fe,Mn)-
(Rh,Pd)

*Kazuhiko Uebayashi¹ (1. National Institute
of Technology, Akita College)

[P19-SF3B-12] Dynamic Charge Stripes and Magnetic
Phase Diagrams in Antiferromagnetic
Tm_{1-x}Yb_xB₁₂

*Karol Flachbart¹, Andrey Azarevich², Alexey
Bogach², Vladimir Glushkov², Sergey
Demishev², Natalya Shitsevalova³, Svytlana
Polovets³, Nikolay Sluchanko², Slavomir
Gabani¹, Jozef Kacmarcik¹ (1. Institute of
Experimental Physics, Slovak Academy of
Sciences, Kosice, Slovakia, 2. General Physics
Institute of RAS, Moscow, Russia, 3. Institute
for Problems of Materials Science of NASU,
Kyiv, Ukraine)

[P19-SF3B-13] Self-Consistent Renormalization Theory
of Anisotropic Spin Fluctuations in
Quasi-One Dimensional Nearly
Antiferromagnetic Metals

*Rikio Konno¹ (1. Kindai University Technical
College)

[P19-SF3B-14] **Study of High-field Magnetization and
Spin Fluctuations in Itinerant
Ferromagnetic Amorphous Alloys Hf_{1-x}
Ta_xFe₂**

Ryo Nakabayashi¹, Yusuke Amakai¹,
*Shigeyuki Murayama¹, Yoshihisa Obi², Frank
R de Boer³, Peter F de Chatel³ (1. Muroran
Institute of Technology, 2. Institute for
Materials Research, Tohoku University, 3.
Van der Waals-Zeeman Institute, University

- of Amsterdam)
- [P19-SF3B-15] Effect of Pressure on the Magnetic Properties of Heusler Compound $\text{Fe}_{1.3}\text{Mn}_{1.7}\text{Si}$
*Kouki Akaishi¹, Iduru Shigeta¹, Masahiko Hiroi¹, Jun Gouchi², Yoshiya Uwatoko² (1. Kagoshima University, 2. Tokyo University)
- [P19-SF3B-16] Mössbauer Spectroscopy of Magnetic Ordered Phases in Heusler Compounds $\text{Fe}_{3-x}\text{Mn}_x\text{Si}$
*MASAHIKO HIROI¹, Kouki Akaishi¹, Tomohito Nonoyama¹, Iduru Shigeta¹, Masahira Onoue¹ (1. Kagoshima University)
- [P19-SF3B-17] Magnetic properties of highly spin polarized Heusler alloy CoFeCrAl
*Hideki Aoshima¹, Iduru Shigeta¹, Touru Yamauchi², Takeshi Kanomata³, Rie Y Umetsu⁴, Shinpei Fujii¹, Masahiko Hiroi¹ (1. Kagoshima University, 2. Tokyo University, 3. Tohoku Gakuin University, 4. Tohoku University)
- [P19-SF3B-18] Effect of Off-site Interaction on Magnetism in a Quasi-Two-Dimensional τ -Type Organic Conductor
*Hirohito Aizawa¹ (1. Polytechnic University)
- [P19-SF3B-19] Magnetic and structural properties of MnZnSb-FeZnSb system with tetragonal Cu_2Sb -type structure
*Yoshifuru Mitsui¹, Hideto Tanaka¹, Masahira Onoue¹, Moriharu Nagano¹, Rie Umetsu², Keiichi Koyama¹ (1. Kagoshima University, 2. IMR, Tohoku University)
- [P19-SF3B-20] Magnetic properties of MnFeGe probed using ⁵⁷Fe Mössbauer spectroscopy
*Masahira Onoue¹, Yoshifuru Mitsui^{2,3}, Saki Imatsuji³, Ryota Kobayashi², Akari Onaka², Reisho Onodera⁴, Keiichi Koyama^{1,2,3} (1. CASRaP, Kagoshima University, 2. Graduate school of Sci. and Eng., Kagoshima University, 3. Faculty of Sci., Kagoshima University, 4. National Institute of Technology, Ibaraki College)
- [P19-SF3B-21] Investigation of the universal scattering rate in PdCrO_2 by high energy electron irradiation
*Elina Zhakina^{1,2}, Philippa McGuinness^{1,2}, Seunghyun Khim¹, Markus König¹, Olivier Cavani³, Romain Grasset³, Marcin Konczykowski³, Andrew Mackenzie^{1,2} (1. Physics of Quantum Materials Department, Max Planck Institute for Chemical Physics of Solids, 2. Scottish Universities Physics Alliance, School of Physics & Astronomy, University of St. Andrews, 3. Laboratoire des Solides Irradiés, CEA/DRF/IRAMIS, Ecole Polytechnique, CNRS, Institut Polytechnique de Paris)
- [P19-SF3B-22] Direct observation of the valence electron density distribution in strongly correlated electron systems
*Shunsuke Kitou¹, Yoshio Kaneko¹, Yoshinori Tokura^{1,2}, Hiroshi Sawa³, Taka-hisa Arima^{1,2} (1. RIKEN CEMS, 2. Tokyo Univ., 3. Nagoya Univ.)
- [P19-SF3B-23] Theoretical Study of the Time-Resolved Spin Structure Factor in the Photoexcited Mott Insulator
*Kenji Tsutsui¹, Kazuya Shinjo², Takami Tohyama³ (1. Synchrotron Radiation Research Center, National Institutes for Quantum Science and Technology, 2. Computational Quantum Matter Research Team, RIKEN Center for Emergent Matter Science (CEMS), 3. Department of Applied Physics, Tokyo University of Science)
- [P19-SF3B-24] Perfect flat band induced by a strong spin-orbit coupling
*Hiroki Nakai¹, Chisa Hotta¹ (1. University of Tokyo)
- [P19-SF3B-25] Enhancement of an Effective Spin-Orbit Coupling in a Correlated Metal
*Katsunori Kubo¹ (1. Japan Atomic Energy Agency)
- [P19-SF3B-26] High-harmonic generation in the extended Hubbard model: Excitonic effects in Mott insulators
*Mina Udono¹, Koudai Sugimoto², Tatsuya Kaneko³, Yukinori Ohta¹ (1. Chiba University, 2. Keio University, 3. RIKEN)
- [P19-SF3B-27] Spin-orbital dynamics of localized electrons

- *Ryuta Iwazaki¹, Hiroshi Shinaoka¹, Shintaro Hoshino¹ (1. Dept. of Phys., Saitama Univ.)
- [P19-SF3B-28] Magnetic-field-induced insulator-metal transition in VO₂ in ultrahigh magnetic fields
*Yasuhiro H. Matsuda¹, Akihiko Ikeda^{2,1}, Daisuke Nakamura^{3,1}, Yuto Ishii¹, Xu-Guang Zhou¹, Reki Nakamoto⁴, Yuji Muraoka⁴ (1. University of Tokyo, 2. University of Electro-Communications, 3. RIKEN, 4. Okayama University)
- [P19-SF3B-30] Carrier doping effect in quantum well of SrVO₃ grown by gas source molecular beam epitaxy
*Kei S. Takahashi¹, Junya Iguchi², Yoshinori Tokura^{2,3}, Masashi Kawasaki^{1,2} (1. RIKEN CEMS, 2. Univ. of Tokyo, 3. Tokyo College)
- [P19-SF3B-32] Carrier doping effect on excitonic transition in (Ta_{1-x}Ti_x)₂NiSe₅
*Shun Tsuchida¹, Yusuke Hirose¹, Rikio Settai¹ (1. Niigata University)
- [P19-SF3B-33] Electrical Transport Properties of La_{1-x}Sr_xMnO₃ Thin Films produced by Metal Organic Decomposition Method
*Hiromi Kobori¹, Kohei Hamada¹, Sara Kawaguchi¹, Toshifumi Taniguchi², Tetsuo Shimizu³ (1. Konan University, 2. Osaka University, 3. National Institute of Advanced Industrial Science and Technology)
- [P19-SF3B-34] Resistive relaxation effect in non-ordered state of non-linear conductive spin-orbit coupled iridate Ca₅Ir₃O₁₂
*Momoka Hayashida¹, Hiroki Hanate¹, Shoya Kawano¹, Takumi Hasegawa², Kazuyuki Matsuhira¹ (1. Graduate School of Engineering, Kyushu Institute of Technology, 2. Graduate School of Advanced Science and Engineering, Hiroshima University)
- [P19-SF3B-35] Optical Conductivity of Geometrically Frustrated Iridate Ca₅Ir₃O₁₂
*Hiroki Hanate¹, Momoka Hayashida¹, Shoya Kawano¹, Kazuma Nakamura¹, Takumi Hasegawa², Yuka Ikemoto³, Satoshi Tsutsui^{3,4}, Kazuyuki Matsuhira¹ (1. Kyushu Inst. of Tech., 2. Hiroshima Univ., 3. JASRI/SPring-8, 4. Ibaraki Univ.)
- [P19-SF3B-36] Doping effect of transport properties on 12L hexagonal perovskite Ba₄BiIr₃O₁₂
*Masaya Inoue¹, Hiroki Hanate¹, Shoya Kawano¹, Satoshi Tsutsui^{2,3}, Kazuyuki Matsuhira¹ (1. Kyushu Inst. of Tech., 2. JASRI/SPring-8, 3. Ibaraki Univ.)
- [P19-SF3B-37] Anomalous mixed low valence states in the layered oxyprictide (LaO)MnAs
*Akihiro Fukawa¹, Takuto Nakazawa¹, Jousuke Tamura¹, Atsushi Hariki², Atsushi Higashiya³, Atushi Yamasaki⁴, Hidenori Fujiwara⁵, Akira Sekiyama⁵, Shin Imada⁶, Kenji Tamasaku⁷, Makina Yabashi⁷, Tetsuya Ishikawa⁷, Kouichi Takase¹ (1. Nihon Univ., 2. Osaka Prefecture Univ., 3. Setsunan Univ., 4. Konan Univ., 5. Osaka Univ., 6. Ritsumeikan Univ., 7. RIKEN Univ.)
- [P19-SF3B-38] Development of Field effect transistor driven by Mott-Peierls transition
*Kazushi Shinya¹, Masahito Sakoda¹, Satoshi Tanda¹ (1. Hokkaido Univ.)
- [P19-SF3B-39] All-optical momentum-resolved spectroscopy in correlated insulators
*Shohei Imai¹, Atsushi Ono¹, Sumio Ishihara¹ (1. Tohoku Univ.)
- [P19-SF3B-40] Pressure Effect on the Dielectric Anomaly in the Antiferromagnetic Manganite CaMn_{0.85}Sb_{0.15}O₃
*Haruka Taniguchi¹, Tomoki Toyama¹, Taisei Minatogawa¹, Hitoshi Kurihashi¹, Satoru Kobayashi¹, Michiaki Matsukawa¹, Ramanathan Suryanarayanan² (1. Iwate University, 2. Université Paris-Sud)
- [P19-SF3B-41] Low-temperature magnetic measurements with applied current: diamagnetic-like signals and the case of Ca₂RuO₄
*Giordano Mattoni¹, Kazumi Fukushima¹, Shingo Yonezawa¹, Fumihiko Nakamura², Yoshiteru Maeno^{1,3} (1. Department of Physics, Kyoto University, Kyoto 606-8502, Japan, 2. Department of Education and Creation Engineering, Kurume Institute of Technology, Fukuoka 830-0052, Japan, 3. Toyota Riken-Kyoto University Research Center (TRiKUC), Kyoto 606-8501, Japan)

- [P19-SF3B-42] Analysis of Photo-Excited States of the 2D Mott Insulator Using Randomized Singular Value Decomposition
*Jun Tokimoto¹, Shu Ohmura², Akira Takahashi², Takami Tohyama¹ (1. Tokyo University of Science, 2. Nagoya Institute of Technology)
- [P19-SF3B-43] Local magnetism in the spin-singlet state of VO₂
*Hirotaka Okabe¹, Masatoshi Hiraishi¹, Akihiro Koda¹, Yoshitaka Matsushita², Takeo Ohsawa², Naoki Ohashi², Ryosuke Kadono¹ (1. Institute of Materials and Structural Science, High Energy Accelerator Research Organization, 2. National Institute for Materials Science)
- [P19-SF3B-44] Analysis of pump-probe spectroscopy in the extended Hubbard model in the infinite matrix-product-states representation
*Koudai Sugimoto¹, Satoshi Ejima² (1. Keio University, 2. Greifswald University)
- [P19-SF3B-45] Magnetic ordering and chiral structure phase transitions of Nd₃T₄Sn₁₃ ($T = \text{Rh}$ and Ir)
Ami Shimoda², *Kazuaki Iwasa¹, Keitaro Kuwahara², Hajime Sagayama³, Hironori Nakao³, Motoyuki Ishikado⁴, Takashi Ohhara⁵, Akiko Nakao⁴, Akinori Hoshikawa¹, Toru Ishigaki¹ (1. Frontier Research Center for Applied Atomic Sciences, Ibaraki University, 2. Graduate School of Science and Engineering, Ibaraki University, 3. High Energy Accelerator Research Organization, 4. Comprehensive Research Organization for Science and Society, 5. J-PARC Center)
- [P23-SF3B-33] Gradual charge order melting in Bi_{0.5}Ca_{0.5}MnO₃ induced by ultrahigh magnetic fields
*Yuto Ishii¹, Akihiko Ikeda^{1,2}, Masashi Tokunaga¹, Koichi Kindo¹, Akira Matsuo¹, Yasuhiro H Matsuda¹ (1. University of Tokyo, 2. University of Electro-Communications)

Poster

[P19-SF4] Poster 1 remote
9:00 PM - 11:00 PM Poster (Main Hall B)

- [P19-SF4-01] High-harmonic generation in the Rice-Mele model: Role of intraband current originating from interband transmission
*Kohei Nagai¹, Yuta Murakami¹, Akihisa Koga¹ (1. Tokyo Institute of Technology)
- [P19-SF4-03] Transport and spectral signatures of periodically driven dissipative Floquet Majorana and quasi-Majorana Modes
*Nicolò Forcellini¹, Dong E. Liu^{2,1} (1. Beijing Academy of Quantum Information Sciences, 2. State Key Laboratory of Low Dimensional Quantum Physics, Department of Physics, Tsinghua University)
- [P19-SF4-04] **Suppression of conductivity in isovalent-rare-earth-substituted nickelates: approaching an apparent $T \rightarrow 0$ bond-percolation transition***
Gregorio Ponti¹, Holland Frieling¹, Sara J. Irvine¹, Lucas P. Moynihan¹, Jonathan D. K. Tebo¹, Quinn D. B. Timmers¹, *John T. Markert¹ (1. Department of Physics, The University of Texas at Austin)
- [P19-SF4-05] Nonequilibrium dynamics and symmetry breaking in topological photonic systems
*Ken Mochizuki¹, Makio Kawasaki², Takumi Bessho³, Kaoru Mizuta¹, Dakyeong Kim², Hideaki Obuse², Masatoshi Sato³, Norio Kawakami³ (1. RIKEN, 2. Hokkaido University, 3. Kyoto University)
- [P19-SF4-07] Exchange-Induced Spin-Orbit Interaction in Conduction Band by Valence Band Exchange interaction through $k \cdot p$ mechanism
*Kenji Hayashida¹, Hiroshi Akeru¹ (1. Hokkaido Univ.)
- [P19-SF4-08] **Electronic spectrum and conductivity in graphene with impurities**
*Sergei Kruchinin¹ (1. Bogolyubov Institute for Theoretical Physics, NASU)
- [P19-SF4-09] Distinct magnetic phases in Cr₃Te₄ epitaxial thin films
Yue Wang¹, *Masaki Nakano^{1,2}, Shun Kajihara¹, Hideki Matsuoka^{1,2}, Yoshihiro Iwasa^{1,2} (1. Quantum-Phase Electronics Center and

Department of Applied Physics, the University
of Tokyo, 2. RIKEN Center for Emergent
Matter Science (CEMS))

[P19-SF4-11] **An oxygen vacancy memristor ruled by
electron correlations**

*Vincent F.C. Humbert¹, Ralph El Hage¹,
Guillaume Krieger², Anke Sander¹, Sophie
Collin¹, Juan Trastoy¹, Javier Briatico¹, Jacobo
Santamaria³, Daniele Preziosi², Javier E.
Villegas¹ (1. Unité Mixte de Physique, CNRS,
Thales, Université Paris-Saclay, 91767,
Palaiseau, France, 2. Université de Strasbourg,
CNRS, IPCMS UMR 7504, 67034 Strasbourg,
France, 3. Grupo de Física de Materiales
Complejos, Dpt. Física de Materiales,
Universidad Complutense de Madrid, 28040
Madrid, Spain)

[P19-SF4-12] Bose glass to Fermi glass transition in
terms of beta-function

*Korekiyo Takahashi¹ (1. Hokkaido
University)

[P19-SF4-13] Electronic structure of monolayer VS₂
thin film studied by ARPES

*Tappei Kawakami¹, Hirofumi Oka², Ken
Yaegashi¹, Kosuke Nakayama^{1,4}, Katsuaki
Sugawara^{1,2,3,4}, Takemi Kato¹, Yasuaki Saruta¹,
Seigo Souma^{2,3}, Miho Kitamura⁵, Koji Horiba^{5,6},
Hiroshi Kumigashira^{5,7}, Takashi Takahashi^{1,2,3},
Tomoteru Fukumura⁸, Takafumi Sato^{1,2,3,9} (1.
Department of Physics, Tohoku University, 2.
Advanced Institute for Materials Research,
Tohoku University, 3. Center for Science and
Innovation in Spintronics, Tohoku University,
4. Precursory Research for Embryonic Science
and Technology, Japan Science and Technology
Agency, 5. Photon Factory, Institute of
Materials Structure Science, High Energy
Accelerator Research Organization, 6.
Institute for Advanced Synchrotron Light
Source, National Institutes for Quantum
Science and Technology, 7. Institute of
Multidisciplinary Research for Advanced
Materials Tohoku University, 8. Department of
Chemistry, Faculty of Science, Tohoku
University, 9. International Center for
Synchrotron Radiation Smart, Tohoku

University)

[P19-SF4-16] Spin Current Generated by Antiparallel
Current-Induced Spin Polarization in
Double Quantum Wells

*Yuta Suzuki^{1,2}, Yuma Kitagawa^{1,2}, Shin-ichiro
Tezuka², Hiroshi Akera³ (1. Graduate School
of Engineering, Hokkaido University, 2.
Innovation Center, Yokogawa Electric
Corporation, 3. Faculty of Engineering,
Hokkaido University)

[P19-SF4-17] Micro-ARPES study of Bismuth

*Ayumi Moriya¹, Kosuke Nakayama^{1,2}, Atsuya
Tokuyama¹, Kensaku Maeda¹, Tappei
Kawakami¹, Seigo Soma¹, Chaoyu Chen³, Jose
Avila³, Miho Kitamura⁴, Koji Horiba⁵, Hiroshi
Kumigashira¹, Takashi Takahashi¹, Kozo
Fujiwara¹, Koji Segawa⁶, Takafumi Sato¹ (1.
Tohoku University, 2. PRESRO, JST, 3. SOLEIL,
4. KEK-IMSS-PF, 5. QST, 6. Kyoto Sangyo
University)

[P19-SF4-19] Interlayer Spin Current in Twisted Bilayer
Silicene Generated by Local Current-
Induced Spin Polarization

*Yuma Kitagawa^{1,2}, Yuta Suzuki^{1,2}, Shin-ichiro
Tezuka², Hiroshi Akera¹ (1. Hokkaido Univ., 2.
Yokogawa Electric Corp.)

[P19-SF4-20] Effects of Unevenness on the Spectral
Functions of One-Dimensional
Conductors

*Mayu Nishimoto¹, Hideo Yoshioka¹, Hiroyuki
Shima² (1. Nara Women's University, 2.
University of Yamanashi)

[P19-SF4-21] Fake surface states of topological
heterojunction in the Bi/BiSb system

*Yuya Asaka¹, Tatsuki Kikuchi¹, Yuki Fuseya¹
(1. University of Electro-Communications)

[P19-SF4-22] Spin Accumulation in an Aharonov-Casher
Interferometer Containing an Artificial
Molecule

*Toshihiro Kubo¹, Yasuhiro Tokura² (1.
National Institute of Technology, Tsuyama
College, 2. University of Tsukuba)

[P19-SF4-23] Quasiparticle Dynamics in Quasiperiodic
Ising Model with Temporally Random Field

*Kohei Ohgane¹, Yusuke Masaki¹, Hiroaki
Matsueda¹ (1. Tohoku Univ.)

- [P19-SF4-24] Spin-Velocity Locking in a Helical Atomic Chain
*Shinnosuke Kashiwa¹, Hiroshi Akerai¹ (1. Hokkaido University)
- [P19-SF4-25] A Probable Crystal Structure of Water Immersed Rb₂Ni₃S₄
*Katsuhiro Hondou¹ (1. Muroran Institute of Technology)
- [P19-SF4-26] STM Study of 12-mer Single Strand Guanine
*KATSUYA ISHIZAKI¹, Issei Miyazaki¹, Harison Rozak^{2,3}, Wan Nurfadhilah Zaharim², Muhammad Hanif Che Lah^{3,4}, Isao Watanabe^{3,2,4}, Shukri Sulaiman², Satoshi Tanda¹, Koichi Ichimura¹ (1. Department of Applied Physics, Hokkaido University, 2. Computational Chemistry and Physics Laboratory, School of Distance Education, Universiti Sains Malaysia, 3. Meson Science Laboratory, RIKEN Nishina Center, 4. Department of Neurosciences, School of Medical Sciences, Universiti Sains Malaysia)
- [P19-SF4-27] New phase transition and parity symmetry breaking in NbSe₃
*Kazu Urushihara¹, Yuta Fukuda¹, Akiya Sean Ebana¹, Koichi Ichimura¹, Satoshi Tanda¹ (1. Hokkaido University)
- [P19-SF4-28] Electrical properties of the graphene/WSe₂ short-channel device
*Kazushi Yokoi¹, Nobuyuki Aoki¹, Kohei Sakanashi¹, Gil-Ho Kim², Kenji Watanabe³, Takashi Taniguchi³ (1. Chiba University, 2. Sungkyunkwan University, 3. National Institute for Materials Science)
- [P19-SF4-29] Transport Properties of Molybdenum Disulfide Field Effect Transistors with Titanium Contact
*Yoshihiro Shimazu¹, Shotaro Ono¹, Keisuke Yanai¹, Shunichi Toda² (1. Yokohama National University, 2. ELIONIX INC.)
- [P19-SF4-30] Quantum confinement in shaped topological insulator nanowires
*Xavier Palermo¹, Kiryl Niherysh², Ananthu Pullukatuthara Surendran¹, Yuchen Ji³, Xufeng Kou³, Thilo Bauch¹, Floriana Lombardi¹ (1. Department of Microtechnology and

Nanoscience – MC2, Chalmers University of Technology, S-412 96 Gothenburg, Sweden, 2. Institute of Chemical Physics, University of Latvia, LV-1586 Riga, Latvia, 3. Department of Physics, ShanghaiTech University, Shanghai, China)

Poster

[P19-SF5] Poster 1 remote
9:00 PM - 11:00 PM Poster (Main Hall B)

- [P19-SF5-01] Opening Microkelvin Regime to Quantum Materials and Quantum Devices
*marijn lucas¹, Lev Levitin¹, Ján Nyéki¹, Jan Knapp¹, Petra Knappová¹, Andrew Casey¹, John Saunders¹ (1. Royal Holloway University of London, Egham, Surrey, UK)
- [P19-SF5-03] Measurements of Helium Mixtures by Neutron Absorption
Chris Lawson¹, *Alexander Jones¹, Winfried Kockelmann¹, Sasha Horney¹, Oleg Kirichek¹ (1. ISIS Neutron and Muon Source)
- [P19-SF5-04] Heat Flow Resistance of Compact Nanopore Heat Exchanger
*Nobuo Wada¹, Taku Matsushita¹, Mitsunori Hieda² (1. Nagoya University, 2. Tokyo Medical and Dental University)
- [P19-SF5-05] Magnetic refrigeration below 1 K using a Yb-based intermetallic compound YbCu₄Ni
*Kanta Watanabe¹, Yasuyuki Shimura¹, Takanori Taniguchi², Kotaro Osato^{2,3}, Rikako Yamamoto¹, Yuka Kusanose¹, Kazunori Umeo⁴, Masaki Fujita², Takahiro Onimaru¹, Toshiro Takabatake¹ (1. Graduate School of Advanced Science and Engineering, Hiroshima University, 2. Institute for Materials Research, Tohoku University, 3. Department of Physics, Graduate School of Science, Tohoku University, 4. Department of Low Temperature Experiment, Integrated Experimental Support/Research Division, N-BARD, Hiroshima University)
- [P19-SF5-06] " Plug-in & cool" nuclear demagnetization stage for cryogen-free dilution refrigerators
*Oleksandr Podopryhora¹, Kamil Golias¹,

- Marcel Clovecko¹, Peter Skyba¹ (1. Institute of Experimental Physics SAS, Slovakia)
- [P19-SF5-07] Adiabatic Demagnetization Refrigeration with Heavy-Fermion Metal YbCu₄Ni down to 0.2 K
*Yasuyuki Shimura¹, Kanta Watanabe¹, Takanori Taniguchi², Kotaro Osato^{2,3}, Rikako Yamamoto¹, Yuka Kusanose¹, Kazunori Umeo⁴, Masaki Fujita², Takahiro Onimaru¹, Toshiro Takabatake¹ (1. Graduate School of Advanced Science and Engineering, Hiroshima University, 2. Institute for Materials Research, Tohoku University, 3. Department of Physics, Graduate School of Science, Tohoku University, 4. Department of Low Temperature Experiment, Integrated Experimental Support/Research Division, N-BARD, Hiroshima University)
- [P19-SF5-08] High performance cryogen-free microkelvin platform
*Anthony J Matthews¹, Harriet van der Vliet¹, Jan Nyeki², Marijn Lucas², Petra Knappova², Lev Levitin², Andrew Casey², John Saunders² (1. Oxford Instruments NanoScience, 2. Department of Physics, Royal Holloway University of London)
- [P19-SF5-09] ³He-free cryostat based on adiabatic demagnetization and ⁴He heat conduction down to 0.5 K
*Shoichi Yoshida¹, Satoru Noguchi¹, Motoi Mikawa², Yasuo Narumi², Masayuki Hagiwara² (1. Osaka Metropolitan University, 2. Osaka University)
- [P19-SF5-10] Development of New-type of Adiabatic Demagnetization Refrigerator Applied Superconducting Material to Heat Switch
*Takuya Komoda¹ (1. Kobe University)
- [P19-SF5-11] Characteristic Investigations of wireless Charging Unit in Superconducting Magnetic Levitation Train for HTS Receiver Coils under Different Resonance Frequency Ranges
*Yoon Do Chung¹, Eun Young Park², Chang Young Lee³ (1. Suwon Science College, 2. Korea Christian University, 3. Korea Railroad Research Institute)

- [P19-SF5-12] Carbon Footprint of the Helium Recovery System at the ISIS Facility
*Richard Brynley Down¹, Alexander Thomas Jones¹, Christopher Robert Lawson¹, Oleg Kirichek¹ (1. ISIS Neutron & Muon Source, Oxford, UK)

Sat. Aug 20, 2022

Poster

Poster

[P20-SF1] Poster

2:00 PM - 4:00 PM Poster (Main Hall B)

Poster

[P20-SF2A] Poster

2:00 PM - 4:00 PM Poster (Main Hall B)

Poster

[P20-SF2B] Poster

2:00 PM - 4:00 PM Poster (Main Hall B)

Poster

[P20-SF3A] Poster

2:00 PM - 4:00 PM Poster (Main Hall B)

Poster

[P20-SF3B] Poster

2:00 PM - 4:00 PM Poster (Main Hall B)

Poster

[P20-SF4] Poster

2:00 PM - 4:00 PM Poster (Main Hall B)

Poster

[P20-SF5] Poster

2:00 PM - 4:00 PM Poster (Main Hall B)

Poster

[P20-SF1] Poster 2 remote

9:00 PM - 11:00 PM Poster (Main Hall B)

[P20-SF1-01] **Simulation of Surface X-ray Diffraction
for Submonolayer Helium Films on
Graphite**

*Atsuki Kumashita¹, Akira Yamaguchi¹, Hiroo Tajiri², Jun Usami^{3,2}, Akihiko Sumiyama¹, Yu Yamane¹, Tomoki Minoguchi⁴, Masaru Suzuki⁵, Yoshiharu Sakurai² (1. Graduate School of Science, University of Hyogo, Japan, 2. Japan Synchrotron Radiation Research Institution, Japan, 3. Cryogenic Research Center, The University of Tokyo, Japan, 4. Institute of Physics, The University of Tokyo, Japan, 5.

Department Engineering Science, University of
Electro-Communications, Japan)

[P20-SF1-02] **Nematic superfluidity
manifested as anomalous topological
defects in spinor quantum gases**

*Hiromitsu Takeuchi¹ (1. Osaka Metropolitan
University)

[P20-SF1-03] Mechanism of splitting instability of a
doubly quantized vortex

*Michikazu Kobayashi¹, Hitomitsu Takeuchi²,
Kenichi Kasamatsu³ (1. Kochi University of
Technology, 2. Osaka City University, 3. Kindai
University)

[P20-SF1-04] Dynamics of the wake in the Gross-
Pitaevskii model with a small nonlinear
coefficient

*Haruya Kokubo¹, Kenichi Kasamatsu¹ (1.
Kindai University)

[P20-SF1-05] Exploring Quantum Many-Body Problems
by Random Sampling Neural Networks and
Self-Supervised Learning

*Daw-Wei Wang^{1,3,4,5}, Chi-Ting Ho¹, Chen-Yu
Liu² (1. Department of Physics, National
Tsing Hua University, Hsinchu 30013, Taiwan,
2. Department of Physics, National Taiwan
University, Taipei 10617, Taiwan, 3. Center
for Theory and Computation, National Tsing
Hua University, Hsinchu 30013, Taiwan, 4.
Center for Quantum Technology, National
Tsing Hua University, Hsinchu 30013, Taiwan,
5. Physics Division, National Center for
Theoretical Sciences, Taipei 10617, Taiwan)

[P20-SF1-06] Connection between the gap dependence
of high harmonic generation and Rabi
frequency

*Akira Kofuji¹, Robert Peters¹ (1. Department
of Physics, Graduate School of Science, Kyoto
University)

[P20-SF1-07] Coulomb gas sum rules for vortex-pair
fluctuations in 2D superfluids

*Karla Maria Galdamez¹, Charlie McDowell¹,
Mingyu Fan², Gary Williams² (1. University of
California Santa Cruz, 2. University of
California Los Angeles)

[P20-SF1-08] Geometric Control of Universal
Hydrodynamic Flow in a Two-Dimensional

Electron Fluid

*Aydin Cem Keser^{1,2}, Daisy Wang^{1,2}, Oleh Klochan^{2,3}, Derek Ho⁴, Olga Tkachenko⁵, Vitaly Tkachenko^{5,6}, Dimitrie Culcer^{1,2}, Shaffique Adam^{4,7,8}, Ian Farrer⁹, David Ritchie⁹, Oleg Sushkov^{1,2}, Alex Hamilton^{1,2} (1. School of Physics, University of New South Wales, Sydney, NSW 2052, Australia, 2. Australian Research Council Centre of Excellence in Low-Energy Electronics Technologies, University of New South Wales, Sydney, NSW 2052, Australia, 3. School of Science, University of New South Wales, Canberra, ACT 2612, Australia, 4. Yale-NUS College, 16 College Avenue West, 138614, Singapore, 5. Rzhhanov Institute of Semiconductor Physics of SB RAS, Novosibirsk, 630090, Russia, 6. Novosibirsk University, Novosibirsk, 630090, Russia, 7. Centre for Advanced 2D Materials and Graphene Research Centre, National University of Singapore, Science Drive 2, 117546, Singapore, 8. Department of Physics, Faculty of Science National University of Singapore, Science Drive 3, 117551, Singapore, 9. Cavendish Laboratory, J. J. Thomson Avenue, Cambridge, CB3 0HE, United Kingdom)

[P20-SF1-09] Apparatus to Visualize Vortices in Superfluid ⁴He in the Zero Temperature Limit

*Chris Goodwin¹ (1. University of Manchester)

[P20-SF1-10] Creation of charged vortex rings by forcing electrons trapped on vortex lines in superfluid ⁴He

*Sio Lon Chan¹ (1. The University of Manchester)

[P20-SF1-11] Spin-dependent harmonic traps for electrons on liquid helium

*Mohamed Hatifi¹ (1. Okinawa Institute of Science and Technology (OIST))

[P20-SF1-12] Experiments with hydrogen atoms at ultra-low energies

*Aleksei Semakin¹, Otto Hanski¹, Janne Ahokas¹, Sergey Vasiliev¹ (1. Wihuri Physical Laboratory, Department of Physics and Astronomy, University of Turku, Turku 20014,

Finland)

[P20-SF1-13] Thermoelectric effect and violation of Wiedemann-Franz law for electrons on liquid helium

*Ivan Kostylev¹ (1. Okinawa Institute of Science and Technology Graduate University)

[P20-SF1-14] Formation of the Vortex Lattice in Fully Coupled Superfluid ⁴He Simulation at Finite Temperature

*Sosuke Inui¹, Makoto Tsubota^{1,2}, Hiromichi Kobayashi³ (1. Osaka City University, 2. Osaka Metropolitan University, 3. Keio University)

[P20-SF1-16] Size effect in quantum turbulence observed with nanoelectromechanical resonator in superfluid ⁴He

*Timo Kamppinen¹, Atso Ikäheimo¹, Jere Mäkinen¹, Vladimir Eltsov¹ (1. Aalto University)

[P20-SF1-18] Steady State and Decay of Inhomogeneous Two-fluid Turbulence Driven by Oscillators in He II

Martin James Jackson¹, *Šimon Midlik¹, Yunhu Huang¹, Zhuolin Xie¹, Filip Novotný¹, Maximilián Goleňa¹, David Schmoranzner¹ (1. Charles University)

[P20-SF1-19] Dynamics of Pinned Vortices between Oscillating Plates; Quantum Turbulence in MEMS Resonator

*Tomo Nakagawa¹, Makoto Tsubota^{1,2} (1. Osaka City University, 2. Osaka Metropolitan University)

[P20-SF1-20] Emission of Vortex Rings from Thermal Counterflow Turbulence in Superfluid Helium 4

*Yoma Miyakoda¹, Osamu Ishikawa¹, Hideo Yano¹, Ken Obara¹ (1. Osaka Metropolitan University)

[P20-SF1-21] Using Tracer Particles to Visualize Quantum Turbulence in Superfluid ⁴He

*Josh Hay¹, Chris Goodwin¹, Ivan Skachko¹, Wei Guo^{2,3}, Paul Walmsley¹, Andrei Golov¹ (1. Department of Physics and Astronomy, The University of Manchester, Manchester M13 9PL, UK, 2. Mechanical Engineering Department, Florida State University, Tallahassee, Florida 32310, USA, 3. National

High Magnetic Field Laboratory, Tallahassee,
FL 32310, USA)

[P20-SF1-22] Development of a Quantized Vortex Ring
Generator

*Reio Kida¹, Yusei Yoshii¹, Susumu Kumaki¹,
Yoshiyuki Shibayama¹ (1. Muroran Institute
of Technology)

[P20-SF1-23] Modeling vortex tangles in superfluid ⁴He
in the $T=0$ limit moving past a solid wall

*Andrei Golov¹, Matthew Doyle¹, Paul
Walmsley¹, Andrew Baggaley² (1. The
University of Manchester, 2. Newcastle
University)

[P20-SF1-24] Fundamental Connection Between
Temperature-quenched 2D Superfluids
and 2D Quantum Turbulence

*Gary A. Williams¹ (1. University of
California, Los Angeles)

[P20-SF1-25] Observation of Phase Slippage in ⁴He
Superflow through a Newly Developed
Microslit

*Tomoyuki Tani¹, Ryoma Wada¹, Kohei Kaiya¹,
Yusuke Nago¹, Satoshi Murakawa², Keiya
Shirahama¹ (1. Keio University, 2. University
of Tokyo)

[P20-SF1-26] Angular momentum sensor for quantum
fluids

*Jinhoon Jeong¹, Hyungsoon Choi¹, Junho
Suh² (1. KAIST, 2. KRISS)

[P20-SF1-27] Studying thermal transport of
topological superfluid ³He under
mesoscopic confinement: surfaces and
interfaces

*Nathan Eng¹, Petri Heikkinen¹, Lev Levitin¹,
Angadjit Singh¹, Xavier Rojas¹, Priya Sharma¹,
Anton Vorontsov², Jeevak Parpia³, Andrew
Casey¹, John Saunders¹ (1. Royal Holloway,
University of London, 2. Montana State
University, 3. Cornell University)

[P20-SF1-28] Transverse Acoustic Waves in the Fermi
Liquid and Superfluid States of ³He

*Man Nguyen¹, Nikolay Zhelev¹, Daehan Park¹,
John W. Scott¹, William P. Halperin¹ (1.
Northwestern University)

[P20-SF1-29] Conductivity of alternating spin currents
in ultracold atomic gases

*Yuta Sekino¹, Hiroyuki Tajima², Shun Uchino³
(1. RIKEN, 2. The University of Tokyo, 3.
Japan Atomic Energy Agency)

[P20-SF1-30] Proposal for Realizing Floquet

Topological Phases in Class CII Using a
Kicked Rotor Model

*Yusuke Koyama¹, Kazuya Fujimoto², Shuta
Nakajima³, Yuki Kawaguchi¹ (1. Nagoya Univ.,
2. Tokyo Institute of Technology, 3. Kyoto
Univ.)

[P20-SF1-31] Development of NEMS-based Thermal Hall
Bar for Two-dimensional Quantum Fluids

*Ryundon Kim¹, Hyunjin Choi¹, Jinhoon Jeong¹,
Junho Suh², Hyungsoon Choi¹ (1. Korea
Advanced Institute of Science and Technology,
2. Korea Research Institute of Standards and
Science)

Poster

[P20-SF2A] Poster 2 remote

9:00 PM - 11:00 PM Poster (Main Hall B)

[P20-SF2A-01] X-ray absorption spectroscopic study of
layered nickelates $\text{Pr}_4\text{Ni}_{3-x}\text{M}_x\text{O}_8$ (M:
transition metal) for high- T_c
superconductor candidate

*Tomonori Miyatake^{1,2}, Yuki Wako¹, Satoru
Tsukamoto¹, Masatomo Uehara¹ (1.
Department of Physics, Yokohama National
University, 2. Research Fellow of Japan
Society for the Promotion of Science)

[P20-SF2A-02] Development of efficient methods in
dynamical mean field theory based on
the characteristics of the frequency
dependence of the local vertex

*Ryota Mizuno¹, Masayuki Ochi^{2,3}, Kazuhiko
Kuroki² (1. Yukawa Institute for
Theoretical Physics, Kyoto University, 2.
Department of Physics, Osaka University, 3.
Forefront Research Center, Osaka
University)

[P20-SF2A-04] Search for Superconductivity of

Phosphorus Doped Sulfur Hydrides
Synthesized under High Temperature
and High Pressure

*Yuki Nakamoto¹, Katsuki Ogawa¹, Misaki
Sasaki¹, Mari Einaga¹, Katsuya Shimizu¹,

- Masafumi Sakata², Satoshi Nakano³, Saori Kawaguchi⁴, Naohisa Hirao⁴, Yasuo Ohishi⁴
(1. Osaka Univ., 2. Gifu Univ., 3. NIMS, 4. JASRI/SPring-8)
- [P20-SF2A-06] High-Pressure Synthesis of Ca-Free Hg-Based Double-Layered Cuprate (Hg,M)(Sr,Ba)₂SrCu₂O_y (M: metal cations)
*Hiroki Ninomiya^{1,2}, Kenji Kawashima^{1,2}, Hiroshi Fujihisa², Yoshito Gotoh², Shigeyuki Ishida², Hiraku Ogino², Yoshiyuki Yoshida², Akira Iyo², Hiroshi Eisaki² (1. IMRA Japan Co., Ltd., 2. AIST)
- [P20-SF2A-07] Theoretical design of cuprate-analog nickelates and magnetic exchange coupling
*Yusuke Nomura¹ (1. Keio University)
- [P20-SF2A-08] Particle-Size Effect of Magnetic Properties on La_{2-x}Sr_xCuO₄ Nanoparticles
*Anita Eka Putri^{1,2}, Budhy Kurniawan², Isao Watanabe¹ (1. RIKEN, 2. Universitas Indonesia)
- [P20-SF2A-09] Enhanced radiation directivity of high- T_c superconducting terahertz emitters
*Yuma Saito¹, Hidetoshi Minami¹, Ryuta Kikuchi¹, Takanari Kashiwagi¹, Manabu Tsujimoto², Kazuo Kadowaki¹ (1. Univ. of Tsukuba, 2. AIST)
- [P20-SF2A-10] Andreev bound states and Doppler shift in La_{1.85}Sr_{0.15}CuO₄/Au junctions
Hironori Teshima¹, Kang Donguhn¹, *Takashi Sakamori¹, Rikizo Yano¹, Yuya Hiramatsu¹, Shun Tamura¹, Keiji Yada¹, Yukio Tanaka¹, Takao Sasagawa², Satoshi Kashiwaya¹ (1. Nagoya university, 2. Tokyo Institute of Technology)
- [P20-SF2A-11] Search for superconductivity of iron hydrides synthesized under high temperature and high pressure
*Misaki Sasaki¹, Seiji Matsumoto¹, Mari Einaga¹, Yuki Nakamoto¹, Katsuya Shimizu¹, Saori Kawaguchi², Naohisa Hirao², Yasuo Ohishi² (1. Osaka University, 2. JASRI/Spring-8)
- [P20-SF2A-12] Development of angle-resolved transport measurement system in a magnetic field using a piezo-driven rotator
*Takaya Shimokawa¹, Hiroki Wajima¹, Kazutoshi Shimamura¹, Satoshi Abe¹, Yasuo Yoshida¹ (1. Kanazawa Univ.)
- [P20-SF2A-13] THz emission from BSCCO cross-whisker junction
*Yoshihiko Takano^{1,2}, Yoshito Saito^{2,1}, Itsuhiro Kakeya³ (1. National Institute for Materials Science (NIMS), 2. Univ. of Tsukuba, 3. Kyoto Univ.)
- [P20-SF2A-14] Towards optical operation of Josephson transport
*Siddharatha Thakur^{1,2} (1. University of Bordeaux, 2. Institut d'Optique & CNRS, LP2N)
- [P20-SF2A-15] Ultrafast optical spectroscopy in the normal state of organic superconductor beta-(BEDT-TTF)₂I₃
*Satoshi Tsuchiya¹, Kensho Nagata¹, Hiromi Taniguchi², Yasunori Toda¹ (1. Hokkaido University, 2. Saitama University)
- [P20-SF2A-16] **Simulation of switching to voltage state in an intrinsic Josephson junction**
*Takamasa Wachi¹, Masaru Kato² (1. Osaka Prefecture University, 2. Osaka Metropolitan University)
- [P20-SF2A-17] Chemical substitution of Ni site and O site in high- T_c superconductor candidate R₄Ni₃O₈ (R=Pr,Nd)
*Yuki Wako¹, Satoru Tsukamoto¹, Tomonori Miyatake^{1,2}, Masatomo Uehara¹ (1. Department of Physics, Yokohama National University, 2. Research Fellow of Japan Society for the Promotion of Science)
- [P20-SF2A-18] Annealing effect of T*-type cuprates Pr_{1.6}Sr_{0.4}CuO₄₋₆
*Tong Wang^{1,2}, Takanori Taniguchi¹, Peiao Xie^{1,2}, Motofumi Takahama^{1,2}, Kenji Ishii³, Yoshihisa Harada⁴, Hisao Kiuchi⁴, Masaki Fujita¹ (1. Institute for Materials Research, Tohoku University, Katahira, Sendai 980-8577, Japan, 2. Department of Physics, Tohoku University, Aobayama, Sendai, 980-8578, Japan, 3. Synchrotron Radiation

Research Center, National Institutes for
Quantum and Radiological Science and
Technology, Hyogo 679-5148, Japan, 4. The
institute for Solid State Physics, Tokyo
University, Japan)

- [P20-SF2A-19] Mutiorbital Effects in Cuprate
Superconductors Studied with a Four-
band $d-p$ Model
*Hiroshi Watanabe¹, Tomonori Shirakawa²,
Kazuhiro Seki², Hirofumi Sakakibara^{3,4,2},
Takao Kotani^{3,4}, Hiroaki Ikeda¹, Seiji Yunoki²
(1. Ritsumeikan University, 2. RIKEN, 3.
Tottori University, 4. Osaka University)
- [P20-SF2A-20] Muon Position and Electronic State in
 La_2CuO_4 Investigated by Muon Spin
Relaxation Measurements and Density
Functional Theory Calculations
*Isao Watanabe^{1,2,3,4,8}, Redo
Ramadhan^{1,2}, Supparat Charoenphon^{1,3}, Irwan
Ramli^{1,4}, Dita Puspita Sari^{1,5}, Anita Eka
Putri^{1,2}, Utami Wydiaiswari^{1,2,4}, Budhy
Kurniawan², Takayuki Kawamata⁶, Tadashi
Adachi⁷, Yoji Koike⁶, Harison Rozak^{1,8}, Wan
Nurfadhilah Zaharim⁸, Shukri Sulaiman⁸ (1.
RIKEN, 2. Universitas Indonesia, 3. Kasetsert
University, 4. Hokkaido University, 5.
Shibaura Institute of Technology, 6. Tohoku
University, 7. Sophia University, 8. Universiti
Sains Malaysia)
- [P20-SF2A-21] Quantum and temperature effects on
crystal structure of superhydride: A
path integral molecular dynamics study
*Yuta Watanabe¹, Takuya Nomoto¹, Ryotaro
Arita^{1,2} (1. The University of Tokyo, 2.
RIKEN Center for Emergent Matter Science
(CEMS))
- [P20-SF2A-22] An Alternative Approach to Strong-
Coupling Systems: beyond Random
Phase Approximation
*Xing Yang¹ (1. Guilin University of
Electronic Technology)
- [P20-SF2A-23] Bond-Order Formation in Double-
Layered Cuprates due to Spin-
Fluctuation Interference Mechanism
*Kanaho Yokota¹, Youichi Yamakawa¹,
Seiichiro Onari¹, Hiroshi Kontani¹ (1.

Nagoya University)

- [P20-SF2A-24] Q Factor Analysis of High T_c
Superconducting Waveguide Resonator
by using Time-Dependent-Ginzburg-
Landau Equation
*Shigeru Yoshimori¹ (1. Takushoku
University)
- [P20-SF2A-25] Prefomed Cooper Pairing and
Superconductivity in Flat-band
Semimetals
*Alexander Zyuzin¹, A. Yu. Zyuzin² (1. Aalto
University, 2. Ioffe Institute)

Poster

[P20-SF2B] Poster 2 remote
9:00 PM - 11:00 PM Poster (Main Hall B)

- [P20-SF2B-26] Anomalous Thermoelectric Power in
 $\text{LaO}_{0.5}\text{F}_{0.5}\text{Bi}_{1-x}\text{Pb}_x\text{S}_2$ ($x = 0.09$)
*Tetta Nakamura¹, Fumiya Ogura¹, Shota
Takeyabu¹, Kazuki Nara¹, Naoki Momono¹,
Yoshiyuki Shibayama¹ (1. Muroran Institute
of Technology)
- [P20-SF2B-27] CDW-induced anisotropic energy gap
and its evolution by carrier doping in a
kagome superconductor CsV_3Sb_5
*Kosuke Nakayama¹, Yongkai Li², Takemi
Kato¹, Min Liu², Zhiwei Wang², Takashi
Takahashi¹, Yugui Yao², Takafumi Sato¹ (1.
Tohoku University, 2. Beijing Institute of
Technology)
- [P20-SF2B-28] High-temperature superconductivity in
two dimensional Ca_2RuO_4 : Signature of
triplet pairing
*Hiroyoshi Nobukane¹, Kosei Yanagihara¹,
Yuji Kunisada¹, Yunito Ogasawara¹, Kakeru
Isono¹, Kazushige Nomura¹, Keita Tanahashi¹,
Takahiro Nomura¹, Satoshi Tanda¹ (1.
Hokkaido University)
- [P20-SF2B-29] Coexistence of Superconductivity and
Ferroelectricity in Ion-Gated SrTiO_3
*Tsutomu Nojima¹, Ryoutarou Hirouchi¹,
Hiroto Chiba¹, Takumi Ouchi¹ (1. Tohoku
University)
- [P20-SF2B-30] Triple- \mathbf{q} CDW order in kagome metal
 AV_3Sb_5 ($A=\text{K,Rb,Cs}$) analyzed by
Ginzburg-Landau theory

- *Akari Ogawa¹, Rina Tazai¹, Youichi Yamakawa¹, Seiichiro Onari¹, Hiroshi Kontani¹ (1. Nagoya University)
- [P20-SF2B-31] Superconductivity and Topology in the Distorted Square-Net Antimonide CaSb₂
*Mohamed Oudah^{1,2}, Joern Bannies^{1,3}, D. A. Bonn^{1,2}, Meigan Aronson^{1,2} (1. Quantum Matter Institute, University of British Columbia, Vancouver, Canada, 2. Dept. of Physics Astronomy, University of British Columbia, Vancouver, Canada, 3. Dept. of Chemistry, University of British Columbia, Vancouver, Canada)
- [P20-SF2B-32] Robust *s*-wave Superconductivity with No Sign-Change in Kagome Superconductor CsV₃Sb₅
*Masaki Roppongi¹, Kota Ishihara¹, Yunosuke Tanaka¹, Marcin Konczykowski², Koki Ogawa¹, Kou Okada¹, Brenden R Ortiz³, Stephen D Wilson³, Yoshiya Uwatoko⁴, Yuta Mizukami¹, Kenichiro Hashimoto¹, Takasada Shibauchi¹ (1. Department of Advanced Materials Science, The University of Tokyo, 2. Ecole Polytechnique, 3. University of California Santa Barbara, 4. Institute for Solid State Physics, University of Tokyo)
- [P20-SF2B-33] Randomness Effect on the Correlated pi-electrons in Molecular Organic Superconductors with Quenched Disorder Introduced by X-ray Irradiation
*Takahiko Sasaki¹, Naomichi Sato¹, Takato Michael Moriya¹, Shiori Sugiura¹, Yuka Ikemoto², Taro Moriwaki², Naoki Yoneyama³ (1. Tohoku University, 2. JASRI/SPring-8, 3. University of Yamanashi)
- [P20-SF2B-34] Electronic structure of layered organic-inorganic hybrid material WO₃(4,4'-bipyridyl)_{0.5} based on the first-principles calculation
*Takuya Sekikawa¹, Jeffery Tallon², Yoshiaki Ono¹ (1. Niigata Univ., 2. MacDiarmid Ins.)
- [P20-SF2B-35] Variation of electronic structure and superconducting symmetry in the series of κ-(BEDT-TTF)₂X charge transfer salts
*Makoto Shimizu¹, Daniel Guterding², Junya Otsuki¹, Harald Oraf Jeschke¹ (1. Okayama Univ., 2. TH Mittelhessen)
- [P20-SF2B-36] Effect of Pb-substitution on La(O,F)BiS₂
*Sho Okada¹, Satoshi Demura¹, Yoshiki Takano¹ (1. College of science and technology, Nihon University)
- [P20-SF2B-38] Micro-ARPES study of ferromagnetic layered oxide Sr₃Ru₄O₁₀
*Seigo Souma¹, Natsume Watanabe¹, Kosuke Nakayama¹, Kunihiko Yamauchi^{2,3}, J F Ribeiro⁴, Y Wang⁵, Miho Kitamura⁶, Koji Horiba⁷, Hiroshi Kumigashira¹, Tamio Oguchi³, Takashi Takahashi¹, Zhiqiang Mao⁵, Takafumi Sato¹ (1. Tohoku University, 2. Kyoto University, 3. Osaka University, 4. Purdue University, 5. Penn State University, 6. High Energy Accelerator Research Organization (KEK), 7. National Institutes for Quantum Science and Technology (QST)
- [P20-SF2B-39] Nano-scale Periodic Modulations on Layered Nitride Chloride Superconductor alpha-TiNCl observed by STM/STS
Kaito Matsumoto¹, *Akira Sugimoto¹, Ekino Toshikazu¹, Masashi Tanaka², Alexander M Gabovich³ (1. Hiroshima University, 2. Kyushu Institute of Technology, 3. National Academy of Sciences of Ukraine)
- [P20-SF2B-40] Anisotropy of Josephson vortex dynamics in FFLO phase for layered organic superconductors
*Shiori Sugiura¹, Takahiko Sasaki¹, Hiroki Akutsu², Yasuhiro Nakazawa², Kyohei Morisada^{3,4}, Taichi Terashima⁴, Shinya Uji^{3,4}, Toby Blundell⁵, Lee Martin⁵ (1. Institute for Materials Research, Tohoku University, 2. Department of Chemistry, Osaka University, 3. Graduate School of Pure and Applied Sciences, University of Tsukuba, 4. National Institute for Materials Science, 5. School of Science and Technology, Nottingham Trent University)
- [P20-SF2B-41] Superconducting Transition around All-In-All-Out Spin Ordered Phase
*Akiho Sumiyoshiya¹, Tetsuya Takimoto² (1.

- Graduate School of Science and Technology,
Niigata University, Niigata 950-2181, Japan,
2. Faculty of Engineering, Niigata
University, Niigata 950-2181, Japan)
- [P20-SF2B-42] Spin-orbital excitations in Sr_2RuO_4
probed with resonant inelastic x-ray
scattering
*Hakuto Suzuki^{1,2}, Joel Bertinshaw², Stefan
Kaser^{2,3}, Maximilian Krautloher², Giniyat
Khaliullin², Philipp Hansmann^{2,3}, Hlynur
Gretarsson^{2,4}, Bernhard Keimer² (1. Tohoku
University, 2. Max Planck Institute for Solid
State Research, 3. University of Erlangen-
Nuremberg, 4. Deutsches Elektronen-
Synchrotron DESY)
- [P20-SF2B-43] Vanishing chiral surface current in a
 $d_{zx} + id_{yz}$ -wave superconductor: effects
of surface roughness
*Shu Suzuki^{1,2}, Satoshi Ikegaya², Alexander A.
Golubov¹ (1. MESA+ Institute for
Nanotechnology, University of Twente, 2.
Department of Applied Physics, Nagoya
University)
- [P20-SF2B-44] Fractional flux quantum in
multicomponent superconductors :
Experimental studies
*Yasumoto Tanaka¹, Hirotake Yamamori¹,
Shunichi Arisawa², Taichiro Nishio³, Kazuyasu
Tokiwa⁴ (1. National Institute of Advanced
Industrial Science and Technology (AIST), 2.
National Institute for Materials Science, 3.
Department of Physics, Tokyo University of
Science, 4. Department of Applied
Electronics, Tokyo University of Science)
- [P20-SF2B-45] Evaluation of Magnetic Field Induced by
Superconductors with Broken Time-
Reversal Symmetry
*Mitsuhiro Teshigawara¹, Yasunori
Mawatari², Hirotake Yamamori², Rikizo
Yano¹, Satoshi Kashiwaya¹ (1. Nagoya
University, 2. National Institute of Advanced
Industrial Science and Technology)
- [P20-SF2B-46] Observation of Little-Parks oscillations
in Bi/Ni bilayer film
*Msashi Tokuda¹, Mai Nakao¹, Mori
Watanabe¹, Ryoya Nakamura¹, Masaki
- Maeda¹, Sanghyun Lee¹, Di Yue², Kazushi
Aoyama¹, Takeshi Mizushima¹, Xiaofeng Jin²,
Kensuke Kobayashi³, Yasuhiro Niimi¹ (1.
Osaka University, 2. Fudan University, 3. The
University of Tokyo)
- [P20-SF2B-47] Spin susceptibility for orbital-singlet
Cooper pair in the three-dimensional
 Sr_2RuO_4 superconductor
*Keiji Yada¹, Yuri Fukaya^{2,3}, Tatsuki
Hashimoto⁴, Masatoshi Sato², Yukio Tanaka¹
(1. Nagoya University, 2. Yukawa Institute
for Theoretical Physics, 3. CNR-SPIN, 4.
Stanford University)
- [P20-SF2B-48] Enhanced Seebeck coefficient in the
spin-glasses $\text{Sr}_2\text{Ru}_{1-x}\text{M}_x\text{O}_4$ ($M = \text{Co}, \text{Mn}$)
*Takayoshi Yamanaka^{1,2}, Ryuji Okazaki¹,
Hiroshi Yaguchi¹ (1. Faculty of Science and
Technology, Tokyo University of Science, 2.
Institute for Materials Research, Tohoku
University)
- [P20-SF2B-49] High resolution Kerr-effect study for
detecting time-reversal symmetry
breaking in unconventional ordered
states
*Soichiro YAMANE¹, Yajian Hu¹, Keito Obata¹,
Giordano MATTONI¹, Yongkai Li², Yugui Yao²,
Zhiwei Wang², Jingyuan Wang³, Camron
Farhang³, Jing Xia³, Shingo Yonezawa¹,
Yoshiteru Maeno^{1,4} (1. Kyoto University, 2.
Beijing Institute of Technology, 3.
Department of Physics and Astronomy,
University of California, 4. Toyota Riken -
Kyoto University Research Center, Kyoto
University)
- [P20-SF2B-50] Crystal structure and physical
properties of new organic conductor κ'' -
 $(\text{ET})_2\text{Cu}[\text{N}(\text{CN})_2]\text{Br}$
*Soichiro Yasaka¹, Mitsuhiro Maesato¹,
Yukihiro Yoshida¹, Hiroshi Kitagawa¹ (1.
Kyoto University)
- [P20-SF2B-51] Quasiparticle bound states in trilayer
Rashba superconductors
*Yoichi Higashi¹ (1. National Institute of
Advanced Industrial Science and Technology
(AIST))
- [P20-SF2B-52] Momentum-Space Analysis of

Topological Superconductivity in Two-Dimensional Quasicrystals

*Masahiro Hori^{1,2}, Rasoul Ghadimi³, Takanori Sugimoto⁴, Takami Tohyama¹ (1. Tokyo Univ. of Sci., 2. Univ. of Saskatchewan, 3. Inst. for Basic Sci., 4. Osaka Univ.)

[P20-SF2B-53] Current phase relation of HgTe nanowire Josephson junctions in an axial magnetic field

*Niklas Huettnner¹, Wolfgang Himmler¹, Ralf Fischer¹, Dmitriy Andreevich Kozlov², Nikolay Nikolayevich Mikhailov², Sergey Alekseevich Dvoretzky², Dieter Weiss¹, Christoph Strunk¹ (1. University of Regensburg, 2. A. V. Rzhanov Institute of Semiconductor Physics)

[P20-SF2B-54] Vortex Manipulation Integrated In Devices

*Itai Keren¹ (1. Hebrew University of Jerusalem Israel)

[P20-SF2B-55] Upper critical field of superconductivity in nodal-line semimetals

*Junya Endo¹, Hiroyasu Matsuura¹, Masao Ogata^{1,2} (1. The University of Tokyo, 2. Trans-scale Quantum Science Institute)

[P20-SF2B-56] Effect of element substitution for misfit compound $(\text{SnSe})_{1.16}(\text{NbSe}_2)_m$

*Naoki Kikuchi¹ (1. Nihon University)

[P20-SF2B-57] Zeeman effects on Yu-Shiba-Rusinov states

*Tadashi Machida^{1,2}, Yuki Nagai^{3,4}, Tetsuo Hanaguri¹ (1. RIKEN CEMS, 2. PREST, Japan Science and Technology Agency, 3. CCSE, Japan Atomic Energy Agency, 4. RIKEN AIP)

[P20-SF2B-59] Engineering Yang-Lee anyons via Majorana bound states

*Takumi Sanno¹, Masahiko G Yamada¹, Takeshi Mizushima¹, Satoshi Fujimoto^{1,2} (1. Department of Materials Engineering Science, Osaka University, 2. Center for Quantum Information and Quantum Biology, Osaka University)

[P20-SF2B-60] Nonlocal correlation of Majorana bound states and 2π -periodic Aharonov-Bohm effect

*Masayuki Sugeta¹, Takeshi Mizushima¹,

Satoshi Fujimoto¹ (1. Osaka Univ.)

[P20-SF2B-62] Topological phase transition in the multi-terminal Josephson junction by using phase and transmission modulations

*Kento Takemura¹, Tomohiro Yokoyama¹ (1. Osaka University)

[P20-SF2B-64] Fermi surface and topological surface superconductivity in nodal line semimetal NaAlSi

*Shinya UJI¹, Takako Konoike¹, Yuya Hattori¹, Taichi Terashima¹, Tamio Oguchi², Toshiya Ikenobe⁴, Daigorou Hirai⁴, Zenji Hiroi⁴, Takahiro Yamada³ (1. National Institute for Materials Science, 2. Osaka University, 3. Tohoku University, 4. University of Tokyo)

[P20-SF2B-65] Higher-dimensional topological states of matter in superconducting systems

*Hannes Weisbrich¹, Raffael L. Klees², Markus Bestler¹, Gianluca Rastelli³, Wolfgang Belzig¹ (1. Universität Konstanz, 2. Universität Würzburg, 3. Università di Trento)

[P20-SF2B-66] Josephson current-phase relations between paired parallel one dimensional p-wave superconducting wires

*Chengrong Xie¹, Shuhei Fukuda¹, Hiroki Tsuchiura¹, Yukio Tanaka² (1. Tohoku University, 2. Nagoya University)

[P20-SF2B-67] Majorana spin current generated by dynamical strains on a surface of topological superconductors

*Yuki Yamazaki¹, Takumi Funato^{2,3}, Ai Yamakage¹ (1. Nagoya Univ., 2. Spintronics Center Keio Univ., 3. Kavli-ITS UCAS)

[P20-SF2B-68] Magnetically Doped Topological Insulator with High Bulk insulation and its Superconducting Proximity Effects

*Rikizo Yano¹, Kohei Tsumura¹, Hishiro T. Hirose², Takao Sasagawa², Satoshi Kashiwaya¹ (1. Nagoya University, 2. Tokyo Institute of Technology)

Poster

[P20-SF3A] Poster 2 remote

9:00 PM - 11:00 PM Poster (Main Hall B)

- [P20-SF3A-01] Dynamics of Visions and thermal Hall effect in perturbed Kitaev models
*Aprem Joy¹, Achim Rosch¹ (1. University of Cologne)
- [P20-SF3A-02] Quantum Phase Transition of the Shastry-Sutherland System and ESR Forbidden Transition
*Toru Sakai^{1,2}, Rito Furuchi¹, Hiroki Nakano¹ (1. University of Hyogo, 2. QST SPring-8)
- [P20-SF3A-03] Spin-chiral fluctuation processes in magnetic metals and insulators
*Max Hirschberger^{1,2} (1. Department of Applied Physics and Quantum-Phase Electronics Center, The University of Tokyo, Bunkyo-ku, Tokyo 113-8656, Japan, 2. RIKEN Center for Emergent Matter Science (CEMS), Wako, Saitama 351-0198, Japan)
- [P20-SF3A-04] **Cu₇(SeO₃)₂O₂Cl₆: a new magnetoelectric compound from CuO-CuCl₂-SeO₂ ternary phase diagram**
*Hung-Duen Yang¹ (1. National Sun Yat-sen University)
- [P20-SF3A-05] High Pressure THz ESR Study of Triangular Lattice Antiferromagnet CsCuCl₃ at Low Temperature
*Hitoshi Ohta¹, Takahiro Sakurai¹, Ryosuke Okuto¹, Susumu Okubo¹, Daisuke Yamamoto², Hidekazu Tanaka³, Yoshiya Uwatoko⁴ (1. Kobe University, 2. Nihon University, 3. Tokyo Institute of Technology, 4. The University of Tokyo)
- [P20-SF3A-06] Classical-Quantum Crossover by External Pressure in the Coupled-Chain Triangular-Lattice Antiferromagnet CsCuCl₃
*Daisuke Yamamoto¹, Takahiro Sakurai², Ryosuke Okuto³, Susumu Okubo^{3,4}, Hitoshi Ohta^{3,4}, Hidekazu Tanaka⁵, Yoshiya Uwatoko⁶ (1. CHS, Nihon Univ., 2. RFC, Kobe Univ., 3. Dept. of Phys., Kobe Univ., 4. MPRC, Kobe Univ., 5. Dept. of Phys., Tokyo Tech., 6. ISSP, The Univ. of Tokyo)
- [P20-SF3A-07] Low Temperature Behavior of Itinerant Ferromagnet Realized in Extended Nagaoka Mechanism
*Hiroaki Onishi¹, Seiji Miyashita² (1. Advanced Science Research Center, Japan Atomic Energy Agency (JAEA), 2. Department of Physics, The University of Tokyo)
- [P20-SF3A-08] Extended Nagaoka Ferromagnetism in Hubbard Model with Particle Bath
*Seiji Miyashita¹, Hiroaki Onishi² (1. Department of Physics, The University of Tokyo, 2. Advanced Science Research Center, Japan Atomic Energy Agency (JAEA))
- [P20-SF3A-10] Theory and experiment on the quantum paramagnetic state in the S=1/2 distorted honeycomb-lattice antiferromagnet Cu₂(pymca)₃(ClO₄)
*Tokuro Shimokawa¹, Ken'ichi Takano², Akira Okutani³, Zentaro Honda⁴, Masayuki Hagiwara⁵ (1. Okinawa Institute of Science and Technology Graduate University, 2. Toyota Technological Institute, 3. Research Center for Development of Far-Infrared Region, University of Fukui, 4. Graduate School of Science and Engineering, Saitama University, 5. Center for Advanced High Magnetic Field Science, Graduate School of Science, Osaka University)
- [P20-SF3A-12] Bilinear-biquadratic spin-1 model in the dimerized and critical phases
*Michael Weyrauch¹ (1. Physikalisch Technische Bundesanstalt)
- [P20-SF3A-13] A proximate Tomonaga-Luttinger phase in an anisotropic S=1/2 Kitaev-Γ model on a honeycomb lattice
*Takafumi Suzuki¹, Jose Carlos Pelayo², Mattias Gohlke² (1. University of Hyogo, 2. Okinawa Institute of Science and Technology Graduate University)
- [P20-SF3A-14] Field-tunable toroidal moment in a chiral-lattice magnet
*Harald O. Jeschke¹, Xiaojian Bai², Daniel Khomskii³, Igor I. Mazin⁴, Sang-Wook Cheong⁵, Huibo Cao² (1. Okayama University, 2. Oak Ridge National Laboratory, 3. Universität zu Köln, 4. George Mason University, 5. Rutgers University)
- [P20-SF3A-15] Topological Characterization of Kitaev Spin Nanoribbons with Ordered Flux Configurations

- *Ryuto Tadokoro¹, Shoji Yamamoto¹ (1. Department of Physics, Hokkaido University)
- [P20-SF3A-17] Analogues of light and gravity in the collective excitations of quantum magnets
*Leilee Chojnacki¹, Rico Pohle², Han Yan³, Yutaka Akagi², Nic Shannon¹ (1. OIST, 2. The University of Tokyo, 3. Rice University)
- [P20-SF3A-18] Novel Order Parameter for UNi₄B Stabilized by Quadrupole Interactions
*Takayuki Ishitobi¹, Kazumasa Hattori¹ (1. Tokyo Metropolitan University)
- [P20-SF3A-19] Thermal Hall responses in frustrated J1-J2-J2' honeycomb model
*Kosuke Fujiwara¹, Sota Kitamura¹, Takahiro Morimoto^{1,2} (1. The University of Tokyo, 2. JST, PRESTO)
- [P20-SF3A-20] Giant anomalous Hall effect due to skew scattering in magnetic Weyl semimetal NdAlSi
*Rinsuke Yamada¹, Max Hirschberger^{1,2}, Takuya Nomoto¹, Ryotaro Arita^{1,2}, Akiko Kikkawa², Yasujiro Taguchi², Yoshinori Tokura^{1,2,3} (1. Department of Applied Physics, University of Tokyo, 2. RIKEN Center for Emergent Matter Science (CEMS), 3. Tokyo College, University of Tokyo)
- [P20-SF3A-21] First-order phase transition in the quantum spin liquid state of a Kitaev candidate α -RuCl₃
*Shota Suetsugu¹, Yuzuki Ukai¹, Masaki Shimomura¹, Masashi Kamimura¹, Tomoya Asaba¹, Yuichi Kasahara¹, Nobuyuki Kurita², Hidekazu Tanaka², Takasada Shibauchi³, Joji Nasu⁴, Yukitoshi Motome⁵, Yuji Matsuda¹ (1. Department of Physics, Kyoto University, 2. Department of Physics, Tokyo Institute of Technology, 3. Department of Advanced Materials Science, University of Tokyo, 4. Department of Physics, Tohoku University, 5. Department of Applied Physics, University of Tokyo)
- [P20-SF3A-22] Powder neutron diffraction of the new Dresselhaus magnet Sr₂MnGe₂S₆O
*Xiaoqi Pang¹, Masahiro Kawamata¹, Masaki Fujita¹, Yusuke Nambu^{1,2,3} (1. Institute for Materials Research, Tohoku University, 2. FOREST, Japan Science and Technology Agency, 3. Organization for Advanced Studies, Tohoku University)
- [P20-SF3A-23] Linear Flavor-Wave Analysis of SU(4)-Symmetric Tetramer Model in a Quadratic Zeeman Field
*Yuki Miyazaki¹, Giacomo Marmorini^{1,2}, Nobuo Furukawa¹, Daisuke Yamamoto² (1. Department of Physics and Mathematics, Aoyama Gakuin University, Japan, 2. Department of Physics, College of Humanities and Sciences, Nihon University, Japan)
- [P20-SF3A-24] Gapless SPT phase in Anisotropic Triangular Strip model
*Yuichiro Hidaka¹, Shunsuke C. Furuya^{2,3}, Atsushi Ueda¹, Yasuhiro Tada⁴ (1. Institute for Solid State Physics, University of Tokyo, 2. Department of Physics, Ibaraki University, 3. Department of Basic Science, University of Tokyo, 4. Quantum Matter Program, Graduate School of Advanced Science and Engineering, Hiroshima University)
- [P20-SF3A-25] Large-Scale Numerical-Diagonalization Study of the Shastry-Sutherland Model
*Hiroki Nakano¹, Toru Sakai^{1,2} (1. University of Hyogo, 2. National Institute for Quantum Science and Technology)
- [P20-SF3A-26] **Pressure induced switching of the interlayer magnetic coupling from antiferromagnetic to ferromagnetic in a van der Waals insulator CrCl₃**
*Dilip Kumar Bhoi¹, Suchanda Mondal², Jun Gouchi¹, Masaaki Matsuda³, Prabhat Mandal^{2,4}, Yoshiya Uwatoko¹ (1. The Institute for Solid State Physics, University of Tokyo, Kashiwa, Chiba 277-8581, Japan, 2. Saha Institute of Nuclear Physics, HBNI, 1/AF Bidhannagar, Kolkata 700 064, India, 3. Neutron Scattering Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee 37831, USA, 4. Department of Condensed Matter Physics and Material Sciences, S. N. Bose National Centre for Basic Sciences, JD

Block, Sector III, Salt Lake, Kolkata, 700106,
India)

[P20-SF3A-27] Magnetic skyrmion creation by electron
hydrodynamic effects

*Junji Fujimoto¹, Wataru Koshibae², Hiroshi
Funaki³, Mamoru Matsuo^{3,2}, Sadamichi
Maekawa^{2,3} (1. University of Tokyo, 2.
RIKEN Center for Emergent Matter Science,
3. Kavli Institute for Theoretical Sciences,
University of Chinese Academy of Sciences)

[P20-SF3A-28] Structural glassy behavior on the
Coulomb frustrated magnet

*Hyeok-Jun Yang¹, Eun-Gook Moon¹, SungBin
Lee¹ (1. Korea Advanced Institute of
Science and Technology)

[P20-SF3A-29] Numerical Study of $S=1/2$ Heisenberg
Antiferromagnet on the Floret
Pentagonal Lattice

*Rito Furuchi¹, Hiroki Nakano¹, Toru Sakai^{1,2}
(1. University of Hyogo, 2. QST SPring-8)

[P20-SF3A-30] Feasibility study of Kitaev quantum spin
liquid for ultracold polar molecules and
higher spin materials

*Kiyu Fukui¹, Yasuyuki Kato¹, Joji Nasu²,
Yukitoshi Motome¹ (1. The University of
Tokyo, 2. Tohoku University)

[P20-SF3A-31] Quantized edge magnetizations and
their symmetry protection in one-
dimensional quantum spin systems

*Shunsuke Furuya¹, Masahiro Sato² (1.
University of Tokyo, 2. Chiba University)

[P20-SF3A-32] Zoology of multiple- Q spin textures in
centrosymmetric tetragonal magnet
 $GdRu_2Si_2$

*Khanh Duy Nguyen¹, Taro Nakajima^{1,2},
Satoru Hayami^{3,4}, Shang Gao^{5,1}, Yuichi
Yamasaki⁶, Hajime Sagayama⁷, Hironori
Nakao⁷, Rina Takagi^{1,3,4,9}, Yukitoshi Motome³,
Yoshinori Tokura^{1,3,10}, Taka-hisa Arima^{1,8},
Shinichiro Seki^{1,3,4,9} (1. RIKEN Center for
Emergent Matter Science (CEMS), Wako 351-
0198, Japan, 2. Institute for Solid State
Physics, The University of Tokyo, Kashiwa
277-8561, Japan, 3. Department of Applied
Physics, University of Tokyo, Tokyo 113-
8656, Japan, 4. PRESTO, Japan Science and

Technology Agency (JST), Kawaguchi 332-
0012, Japan, 5. Neutron Scattering Division,
Oak Ridge National Laboratory, Oak Ridge,
Tennessee 37831, USA, 6. Research and
Services Division of Materials Data and
Integrated System (MaDIS), National
Institute for Materials Science (NIMS),
Tsukuba 305-0047, Japan, 7. Institute of
Materials Structure Science, High Energy
Accelerator Research Organization, Tsukuba
305-0801, Japan, 8. Department of Advanced
Materials Science, The University of Tokyo,
Kashiwa 277-8561, Japan, 9. Institute of
Engineering Innovation, The University of
Tokyo, Tokyo 113-0032, Japan, 10. Tokyo
College, The University of Tokyo, Tokyo 113-
8656, Japan)

[P20-SF3A-33] Possible Chiral Spin Liquid State in the
 $S=1/2$ Kagome Heisenberg Model

*Rongyang Sun^{1,2,3}, Huike Jin⁴, Honghao Tu⁵,
Yi Zhou^{6,7,3,8} (1. RIKEN Center for
Computational Science, 2. RIKEN Center for
Quantum Computing, 3. Kavli Institute for
Theoretical Sciences, University of Chinese
Academy of Sciences, 4. Department of
Physics TQM, Technische Universitat
Munchen, 5. Institute of Theoretical Physics,
Technische Universitat Dresden, 6. Institute
of Physics, Chinese Academy of Sciences, 7.
Songshan Lake Materials Laboratory, 8. CAS
Center for Excellence in Topological
Quantum Computation)

[P20-SF3A-34] First-principles study of dynamical
Jahn-Teller effect in K_2RuCl_6

Shouta Shikano¹, Vieru Veaceslav², *Naoya
Iwahara¹ (1. Chiba University, 2. Maastricht
University)

[P20-SF3A-35] Domain Control by Magnetic Field in the
 $5d^1$ Double Perovskite Ba_2MgReO_6

*Toshihiko Muroi¹, Daigorou Hirai¹, Hajime
Sagayama², Taka-hisa Arima³, Zenji Hiroi¹
(1. Institute for Solid State Physics,
University of Tokyo, 2. Institute of Materials
Structure Science, High Energy Accelerator
Research Organization, 3. Department of
Advanced Materials Science, University of

Tokyo,)

- [P20-SF3A-36] Experimental signatures of versatile Weyl semimetal in pyrochlore iridate with spin-ice like magnetic orders
*Kentarō Ueda¹, Hiroaki Ishizuka², Markus Kriener³, Shunsuke Kitou³, Denis Maryenko³, Minoru Kawamura³, Taka-hisa Arima^{1,3}, Masashi Kawasaki^{1,3}, Yoshinori Tokura^{1,3} (1. university of tokyo, 2. Tokyo institute of technology, 3. RIKEN center for emergent matter science)
- [P20-SF3A-37] Majorana-mediated spin transport in the Kitaev model
*Akihisa Koga¹, Yuta Murakami¹, Joji Nasu² (1. Tokyo Institute of Technology, 2. Tohoku University)
- [P20-SF3A-38] SU(3) symmetric tri-critical point of a spin-1 chain
*Tohru Mashiko¹ (1. Kyushu University)
- [P20-SF3A-39] **Dissipationless spin current generation in a Kitaev chiral spin liquid**
*Daichi Takikawa¹, Masahiko G Yamada¹, Satoshi Fujimoto¹ (1. Osaka University)
- [P20-SF3A-40] Presence and absence of quantized thermal Hall conductance in a spin liquid state of the Kitaev material candidate α -RuCl₃
*Yuichi Kasahara¹, Shota Suetsugu¹, Tomoya Asaba¹, Shigeru Kasahara², Takasada Shibauchi³, Nobuyuki Kurita⁴, Hidekazu Tanaka⁴, Yuji Matsuda¹ (1. Kyoto University, 2. Okayama University, 3. University of Tokyo, 4. Tokyo Institute of Technology)
- [P20-SF3A-41] Majorana Landau levels in an Anisotropically Interacting Strained Kitaev Model
*Seiichiro Suga¹ (1. University of Hyogo)
- [P20-SF3A-42] Asymmetric modulation of Majorana excitation spectra and thermal transport in the Kitaev spin liquid under a staggered magnetic field
*Kazuki Nakazawa¹, Yasuyuki Kato¹, Yukitoshi Motome¹ (1. University of Tokyo)

- [P20-SF3A-43] Magnetic and Transport Properties of the Pseudobrookite Al_{1-x}Ti_{2+x}O₅ single crystals
Ryusei Takahama¹, Mitsutoshi Arizono¹, Daigo Indo¹, Taisei Yoshinaga¹, Chieko Terakra², Yoshinori Tokura^{2,3}, Nao Takeshita⁴, Takumi Shirasaki⁵, Masaaki Noda⁵, Hideki Kuwahara⁵, Ryoichi Kajimoto⁶, Takuro Katsufuji⁷, *Tetsuji Okuda¹ (1. Kagoshima university, 2. RIKEN Center for Emergent Matter Science, 3. University of Tokyo, 4. National Institute of Advanced Industrial Science and Technology, 5. Sophia University, 6. J-PARC Center, 7. Waseda University)
- [P20-SF3A-44] Induced Staggered U(1) Quantum Spin Liquid on the Pyrochlore Lattice
*Hee Seung Kim¹, Hyeok-Jun Yang¹, Karlo Penc², SungBin Lee¹ (1. Korea Advanced Institute of Science and Technology, 2. Wigner Research Centre for Physics)
- [P22-SF3A-33] **Field dependent specific heat measurements of the Kitaev quantum spin liquid candidate Na₂Co₂TeO₆**
*Shengjie Fang¹, Yuta Mizukami¹, Kenichiro Hashimoto¹, Takasada Shibauchi¹ (1. Dept. of Adv. Mater. Sci., Univ. of Tokyo)
- [P23-SF3A-07] Gapless linear excitations for the bond-parallel field direction in the Kitaev spin liquid state of α -RuCl₃
*Kumpei Imamura¹, Yuta Mizukami², Yusei Yoshida¹, Kenichiro Hashimoto¹, Nobuyuki Kurita³, Hidekazu Tanaka³, Satoshi Fujimoto⁴, Masahiko Yamada⁴, Yuji Matsuda⁵, Moon Eun Gook⁶, Takasada Shibauchi¹ (1. University of Tokyo, 2. Tohoku University, 3. Tokyo Institute of Technology, 4. Osaka University, 5. Kyoto University, 6. Korea Advanced Institute of Science and Technology)

Poster

[P20-SF3B] Poster 2 remote
9:00 PM - 11:00 PM Poster (Main Hall B)

[P20-SF3B-01] Non-Abelian anyons trapped in vacancies of the Kitaev model and non-local spin correlations

- *Masahiro O. Takahashi¹, Masahiko G. Yamada¹, Masafumi Udagawa², Takeshi Mizushima¹, Satoshi Fujimoto¹ (1. Engineering Science/Osaka University, 2. Faculty of Science/Gakushuin University)
- [P20-SF3B-02] NMR studies on the organic triangular lattice system, κ -phase BEDT-TTF salts
*Kazuya Miyagawa¹, Koji Shimizu¹, Mizuki Urai¹, Kodai Wakamatsu¹, Yoshihiro Ueno¹, Yuto Kajiwara¹, Hiromi Taniguchi², Takahiko Sasaki³, Kazushi Kanoda¹ (1. University of Tokyo, 2. Saitama University, 3. Tohoku University)
- [P20-SF3B-03] Skyrmion Crystals in Centrosymmetric Multi-Layer Systems
*Satoru Hayami¹ (1. The University of Tokyo)
- [P20-SF3B-04] Interaction of a Né el-type skyrmion with a superconducting vortex
*Elizaveta Andriyakhina^{1,2}, Igor Burmistrov^{1,3} (1. L.D. Landau Institute for Theoretical Physics, 2. Moscow Institute of Physics and Technology, 3. Laboratory for Condensed Matter Physics, HSE University)
- [P20-SF3B-05] Nonlinear Topological Transport in Organic Dirac Fermion System
*Toshihito Osada¹, Kenta Yoshimura¹, Anhdika Kiswandhi¹ (1. Institute for Solid State Physics, University of Tokyo)
- [P20-SF3B-06] **Large nonlinear response in a Weyl-Kondo semimetal**
*Robert Peters¹, Akira Kofuji¹, Yoshihiro Michishita² (1. Kyoto University, 2. RIKEN Center for Emergent Matter Science)
- [P20-SF3B-07] Magnetic Field-Temperature Phase Diagrams and Spin Excitation Spectra for Topological Multiple-Q Magnetic Orders
*Yasuyuki Kato¹, Satoru Hayami¹, Yukitoshi Motome¹ (1. the University of Tokyo)
- [P20-SF3B-08] Field-Induced Insulating State in the Extreme Quantum Limit of $\text{Bi}_{1-x}\text{Sb}_x$ ($x \sim 0.1$)
*Masashi Tokunaga¹, Yuto Kinoshita¹, Takuya Fujita¹, Ryosuke Kurihara¹, Atsushi Miyake¹, Yuki Izaki², Yuki Fuseya³ (1. The Institute for Solid State Physics, The University of Tokyo, 2. Tokyo Institute of Technology, 3. University of Electro-Communications)
- [P20-SF3B-09] Quadruple-Q Hedgehog Lattices in Itinerant Magnets
*Shun Okumura¹, Satoru Hayami¹, Yasuyuki Kato¹, Yukitoshi Motome¹ (1. The Univ. of Tokyo)
- [P20-SF3B-10] Mass-Controlled Topological Edge States in Two Dimensions
*Tohru Kawarabayashi¹, Yasuhiro Hatsugai² (1. Toho University, 2. University of Tsukuba)
- [P20-SF3B-11] Monoaxial Chiral Magnets in Tilted Magnetic Field
*Yusuke Masaki¹, Ryuya Aoki², Yoshihiko Togawa², Yusuke Kato³ (1. Tohoku Univ., 2. Osaka Metropolitan Univ., 3. the Univ. of Tokyo)
- [P20-SF3B-12] Inverse Hamiltonian design by automatic differentiation
*Koji Inui¹, Yukitoshi Motome¹ (1. The University of Tokyo)
- [P20-SF3B-13] Dirac points with topologically protected multi-helicoid surface states
*Tiantian Zhang¹, Daisuke Hara¹, Shuichi Murakami¹ (1. Institute of Technology)
- [P20-SF3B-14] Maximizing anomalous Hall effect by tuning the Fermi level in simple Weyl semimetal films
*Mizuki Ohno^{1,2,3}, Susumu Minami⁴, Yusuke Nakazawa^{1,2}, Shin Sato^{1,2}, Markus Kriener⁵, Ryotaro Arita^{1,5}, Masashi Kawasaki^{1,2,5}, Masaki Uchida³ (1. Dept. of Appl. Phys., the Univ. of Tokyo, 2. QPEC, the Univ. of Tokyo, 3. Dept. of Phys., Tokyo Tech., 4. Dept. of Phys., the Univ. of Tokyo, 5. RIKEN CEMS)
- [P20-SF3B-15] Topological charge pumping in a quasicrystal
*Mao Yoshii¹, Sota Kitamura¹, Takahiro Morimoto^{1,2} (1. The University of Tokyo, 2. JST, PRESTO)
- [P20-SF3B-16] Strong electronic correlation and dimensional crossover in quasi-two-dimensional Dirac fermion system
*Takao Morinari¹ (1. Kyoto University)

- [P20-SF3B-17] Physical properties of semimetallic magnets UOX ($X = S, Se, Te$)
*Petr Opletal¹, Hironori Sakai¹, Yoshinori Haga¹, Yoshifumi Tokiwa¹, Etsuji Yamamoto¹, Shinsaku Kambe¹, Yo Tokunaga¹ (1. Advanced Science Research Center, Japan Atomic Energy Agency)
- [P20-SF3B-18] Low Temperature Phases in Organic Massless Dirac Electron System a-(BEDT-TTF)₂I₃ under Pressure
*Naoya Tajima¹, Yoshitaka Kawasaki¹, Toshio Naito², Reizo Kato³, Yutaka Nishio¹ (1. Toho Univ., 2. Ehime Univ., 3. RIKEN)
- [P20-SF3B-19] Observation of Domain-Dependent Dirac-Cone Surface States in Antiferromagnetic NdBi by Micro-ARPES
*Asuka Honma¹, Daichi Takane¹, Seigo Souma¹, Yongjian Wang², Kosuke Nakayama¹, Miho Kitamura³, Koji Horiba⁴, Hiroshi Kumigashira¹, Timur Kim⁵, Cephise Cacho⁵, Yoichi Ando², Takafumi Sato¹ (1. Tohoku University, 2. University of Cologne, 3. KEK-IMSS-PF, 4. QST, 5. Diamond Light Source)
- [P20-SF3B-20] THz Surface Plasmon Resonance and ARPES in Dirac Electron System of Topological Insulator Bi₂(Se,Te)₃ Thin Films
*Hinano Sugimoto¹, Kana Nishimura¹, Ryo Okano¹, Miho Kitamura², Katsuaki Sugawara³, Seigo Soma³, Kosuke Nakayama³, Takafumi Sato³, Masaki Kobayashi¹, Hitoshi Tabata¹ (1. the University of Tokyo, 2. High Energy Accelerator Research Organization (KEK), 3. Tohoku University)
- [P20-SF3B-21] **High-resolution ARPES study of bismuthene on H-SiC**
*Ken Yaegashi¹ (1. Tohoku University)
- [P20-SF3B-23] Narrow-gap Kondo insulating ground state of Ce₃Bi₄Pd₃ revealed by applied pressure
*Ajeesh Mukkattu Omanakuttan¹, Sean M. Thomas¹, Satya K. Kushwaha², Eric D. Bauer¹, Filip Ronning¹, Joe D. Thompson¹, Neil Harrison², Priscila F. S. Rosa¹ (1. Los Alamos National Laboratory, Los Alamos, New Mexico, U.S.A., 2. National High Magnetic
- Field Laboratory, Los Alamos, New Mexico, U.S.A.)
- [P20-SF3B-24] Anomalous Hall effect from non-Hermitian origins
*Hiroki Isobe¹, Naoto Nagaosa^{1,2} (1. University of Tokyo, 2. RIKEN)
- [P20-SF3B-25] Precision measurement of quantum anomalous Hall effect in magnetic topological insulator
Yuma Okazaki¹, Takehiko Oe¹, *Minoru Kawamura², Ryutaro Yoshimi², Shuji Nakamura¹, Shintaro Takada¹, Masataka Mogi^{2,3}, Kei S Takahashi², Atsushi Tsukazaki⁴, Masashi Kawasaki^{2,3}, Yoshinori Tokura^{2,3,5}, Nobuhisa Kaneko¹ (1. National Institute of Advanced Industrial Science and Technology (AIST), National Metrology Institute of Japan (NMIJ), 2. RIKEN Center for Emergent Matter Science (CEMS), 3. Department of Applied Physics and Quantum-phase Electronics Center (QPEC), University of Tokyo, 4. Institute for Materials Research (IMR), Tohoku University, 5. Tokyo College, University of Tokyo)
- [P20-SF3B-26] Electrical gate tuning of anomalous Hall effect in CaIrO₃/CaMnO₃ heterointerface
*Takahiro C. Fujita¹, Ryutaro Nishino¹, Masashi Kawasaki^{1,2} (1. Univ. of Tokyo, 2. RIKEN Center for Emergent Matter Science (CEMS))
- [P20-SF3B-27] Multiple Quantum Oscillations in Cd₃As₂
*Yuki Izaki¹, Yuki Fuseya² (1. Tokyo Institute of Technology, 2. University of Electro-Communications)
- [P20-SF3B-29] Temperature-dependent spin-polarized electronic structure of the half-metallic Heusler alloy Co₂MnSi films
*Kazuki Sumida¹, Masaaki Kakoki², Yuya Sakuraba³, Keisuke Masuda³, Takashi Kono², Kazuki Goto³, Koji Miyamoto², Yoshio Miura³, Kazuhiro Hono³, Taichi Okuda², Akio Kimura² (1. Japan Atomic Energy Agency, 2. Hiroshima University, 3. National Institute for Materials Science)
- [P20-SF3B-30] **Polar Kerr effect study on the time-**

**reversal symmetry-breaking charge
density wave in the Kagome
superconductor CsV_3Sb_5**

*Yajian Hu¹, Soichiro Yamane¹, Giordano Mattoni¹, Keito Obata¹, Yongkai Li², Yugui Yao², Zhiwei Wang², Jingyuan Wang³, Camron Farhang³, Jing Xia³, Shingo Yonezawa¹, Yoshiteru Maeno^{1,4} (1. Kyoto University, 2. Beijing Institute of Technology, 3. University of California, Irvine, 4. Toyota Riken - Kyoto University Research Center)

- [P20-SF3B-31] Intrinsic phonon Hall effect in the non-magnetic insulator
*Takuma Saito¹, Kou Misaki¹, Hiroaki Ishizuka², Naoto Nagaosa³ (1. The University of Tokyo, 2. Tokyo Institute of Technology, 3. RIKEN Center for Emergent Matter Science (CEMS))
- [P20-SF3B-32] Investigating the stability of magnetism and Weyl features in kagome-lattice ferromagnet $\text{Co}_3\text{Sn}_2\text{S}_2$ thin films
*Kohei Fujiwara¹, Junya Ikeda¹, Junichi Shiogai¹, Takeshi Seki¹, Kentaro Nomura¹, Koki Takanashi^{1,2}, Atsushi Tsukazaki^{1,2} (1. Institute for Materials Research, Tohoku University, 2. Center for Science and Innovation in Spintronics (CSIS), Tohoku University)
- [P20-SF3B-33] Theoretical study of twisted bilayer $\text{Bi}_2(\text{Te}_{1-x}\text{Se}_x)_3$
*Ikuma Tateishi¹, Motoaki Hirayama^{2,1,3} (1. RIKEN, 2. Univ. of Tokyo, 3. JST, PRESTO)
- [P20-SF3B-34] Stable Topological Domain Walls in Doped Graphene Nanoribbons
*Takuto Kawakami¹, Gen Tamaki¹, Mikito Koshino¹ (1. Osaka Univ.)
- [P20-SF3B-36] Valley dependent band engineering in twisted bilayer BC_3
*Toshikaze Kariyado¹, Ashvin Vishwanath² (1. National Institute for Materials Science, 2. Harvard University)
- [P20-SF3B-37] $\text{SU}(4)$ valley+spin fluctuation interference mechanism for nematic order in magic-angle twisted bilayer graphene

*Seiichiro Onari¹, Hiroshi Kontani¹ (1. Nagoya University)

- [P20-SF3B-38] Lorenz ratio of anisotropic Fermi liquid
*Hideaki Maebashi¹, Keigo Takahashi¹, Hiroyasu Matsuura¹, Masao Ogata¹ (1. Univ. Tokyo)
- [P20-SF3B-39] Density-matrix renormalization group study of local multiplet around a single vacancy in graphene
*Tomonori Shirakawa¹, Seiji Yunoki¹ (1. RIKEN)
- [P20-SF3B-40] Transport in semimetals: contribution from electron-hole scattering
*Keigo Takahashi¹, Hiroyasu Matsuura¹, Hideaki Maebashi¹, Masao Ogata¹ (1. University of Tokyo)
- [P20-SF3B-41] Successive Phase Transitions of the Spin-Orbit-Coupled Metal $\text{Cd}_2\text{Re}_2\text{O}_7$ Probed by High-Resolution Synchrotron X-Ray Diffraction
*Daigorou Hirai¹, Atsuhito Fukui¹, Hajime Sagayama², Takumi Hasegawa³, Zenji Hiroi¹ (1. University of Tokyo, 2. High Energy Accelerator Research Organization, 3. Hiroshima University)
- [P20-SF3B-42] Remaining Spin Fluctuations of Nd in $\text{Nd}_2\text{Ru}_2\text{O}_7$ Observed by Muon Spin Relaxation Down to Sub-K Region
*Utami Widayaiswari^{1,2,6}, Hideaki Sakai³, Noriaki Hanasaki³, Dita Puspita Sari⁴, Akihiro Koda⁵, Budhy Kurniawan⁶, Isao Watanabe^{1,2,6} (1. Hokkaido University, 2. RIKEN, 3. Osaka University, 4. Shibaura Institute of Technology, 5. KEK, 6. Universitas Indonesia)
- [P20-SF3B-43] Bond ordering in spin-orbit-coupled metal $\text{Cd}_2\text{Re}_2\text{O}_7$ revealed by single crystal structure analysis using synchrotron radiation X-ray
*Hajime Sagayama¹, Daigorou Hirai², Atsuhito Fukui², Taka-hisa Arima^{3,4}, Zenji Hiroi² (1. Institute of Materials Structure Science, High Energy Accelerator Research Organization (KEK), 2. Institute for Solid State Physics, University of Tokyo, 3. Department of Advanced Materials Science,

University of Tokyo, 4. RIKEN Center for Emergent Matter Science (CEMS))

- [P20-SF3B-44] Spin-current generation from 5d transition-metal oxides
Kohei Ueda^{1,2}, Sosuke Hori¹, Takanori Kida³, Masayuki Hagiwara³, *Jobu Matsuno^{1,2} (1. Dept. of Phys., Osaka Univ., 2. CSRN, Osaka Univ., 3. AHMF, Osaka Univ.)

- [P20-SF3B-45] **Dynamical Elastic Response of Lattice Instability in Cd₂Re₂O₇**
Yoshito Mikami¹, *Tatsuya Yanagisawa¹, Ruo Hibino¹, Masato Matsuda¹, Hiroyuki Hidaka¹, Hiroshi Amitsuka¹, Daigorou Hirai², Zenji Hiroi² (1. Hokkaido University, 2. Institute for Solid State Physics, University of Tokyo)

Poster

- [P20-SF4] Poster 2 remote
9:00 PM - 11:00 PM Poster (Main Hall B)
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- [P20-SF4-02] Detection of Many-Body Localization Using Spectral Functions
*Kazue Kudo^{1,2} (1. Ochanomizu Univ., 2. Tohoku Univ.)
- [P20-SF4-03] Electron Charge Qubits with Ultralong Coherence on Solid Neon Surface
*Dafei Jin¹ (1. Argonne National Laboratory)
- [P20-SF4-04] Qubit-Compatible Substrates with Superconducting Through-Silicon Vias
Kestutis Grigoras¹, Nikolai Yurttagül¹, Jukka-Pekka Kaikkonen¹, *Elsa Mannila¹, Patrik Eskelinen¹, Nils Tiencken¹, Arto Hujanen¹, Alberto Ronzani¹, Joel Hättinen¹, Debopam Datta¹, Visa Vesterinen¹, Leif Grönberg¹, Mika Prunnila¹, Joonas Govenius¹ (1. VTT Technical Research Centre of Finland Ltd., QTF Centre of Excellence, P.O. Box 1000, FI-02044 VTT Espoo, Finland)
- [P20-SF4-05] Automatic self-correcting quantum spin systems
*Isaac Fernando Quijandria Diaz¹, Jason Twamley¹ (1. Okinawa Institute of Science and Technology)
- [P20-SF4-06] MBE-CQEC: a new scheme for quantum error correction

*Sangkha Borah¹, Bijita Sarma¹, Michael Kewming², Fernando Quijandria¹, Gerard J. Milburn³, Jason Twamley¹ (1. Okinawa Institute of Science and Technology Graduate University, Japan, 2. Trinity College Dublin, Ireland, 3. University of Queensland, Australia)

- [P20-SF4-07] Ultra-precise distance measurement in an optomechanical system
*Tatiana Iakovleva¹, Bijita Sarma¹, Hoshu Hiyane², Jason Twamley¹ (1. Quantum Machines Unit, Okinawa Institute of Science and Technology Graduate University, 2. Quantum Systems Unit, Okinawa Institute of Science and Technology Graduate University)
- [P20-SF4-08] Quantum self-oscillation with time-delay feedback
*Yanan Liu¹, Jason Twamley¹, William Munro² (1. Okinawa Institute of Science and Technology, 2. NTT Basic Research Laboratories & NTT Research Center for Theoretical Quantum Physics)
- [P20-SF4-11] QCCS for solid-state quantum computing
*Chunyan Shi¹, Michitoshi Noguchi¹ (1. Zurich Instruments)
- [P20-SF4-12] Improving Sampling Efficiency of Quantum Computation of Many-body Systems at Finite-Temperatures by Ergodic Dynamics
*Shimpei Goto¹, Ryui Kaneko², Ippei Danshita² (1. Tokyo Medical and Dental University, 2. Kindai University)
- [P20-SF4-13] Dispersive readout of the electrons-on-helium Rydberg states with Landau levels
*Kirill Shulga¹, Denis Konstantinov¹ (1. Okinawa Institute of Science and Technology (OIST))
- [P20-SF4-14] Robust strong-coupling architecture in circuit quantum electrodynamics
*Rishabh Upadhyay¹, George Thomas¹, Yu-Cheng Chang¹, Andrew Guthrie¹, Dmitry Golubev¹, Azat Gubayadullin¹, Joonas Peltonen¹, Jukka Pekola¹ (1. Pico group, QTF Centre of Excellence, Aalto University, Finland)
- [P20-SF4-17] Comparison of Simulation and

Experimental Results of Travelling Wave
JPA's in the Three Wave Mixing Regime
*Searbhan Gearoid O Peatain^{1,2}, Yuri Pashkin¹,
Sergey Kafanov¹, Tom Dixon², Phil Meeson³,
Jonathan Williams² (1. Lancaster University,
2. NPL, 3. Royal Holloway University, London)

[P20-SF4-19] Tank circuit image charge readout for e⁻
@He qubit

*Mikhail Belianchikov¹, Shan Zou¹, Denis
Konstantinov¹ (1. Okinawa Institute of
Science and Technology)

[P20-SF4-22] Hybrid quantum-classical algorithm for
computing imaginary-time correlation
functions

*Rihito Sakurai¹, Wataru Mizukami², Hiroshi
Shinaoka¹ (1. Saitama Univ., 2. QIQB Osaka
Univ.)

[P20-SF4-23] Double Resonance NMR of Optically
Hyperpolarized Nuclear Spin Systems in
Semiconductors

*Atsushi Goto¹, Kenjiro Hashi¹, Shinobu Ohki¹,
Tadashi Shimizu¹ (1. National Institute for
Materials Science)

[P20-SF4-24] Landau-Zener-Stückelberg-Majorana
transitions
for fast quantum logic gates

*Oleh Ivakhnenko^{1,2}, Artem Ryzhov¹, Sergey
Shevchenko^{1,3}, Miguel Fernando Gonzalez-
Zalba⁴, Franco Nori^{2,5} (1. B. Verkin ILTPE of
NASU, Ukraine, 2. RIKEN, Japan, 3. V. N.
Karazin Kharkiv National University, Ukraine,
4. Quantum Motion, London N7 9HJ, United
Kingdom, 5. Physics Department, University of
Michigan, USA)

[P20-SF4-26] The role of quantum coherence in heat
transport in driven
superconducting circuits

*George Thomas¹, Jukka P. Pekola¹ (1. Aalto
university)

[P20-SF4-27] Quantum computations with Majorana
edge states and superconducting qubits

*Yuriy Makhlin¹ (1. HSE-Physics and Landau
Institute for theoretical physics, Russia)

[P20-SF4-28] Parametric drive induced dipole forbidden
transition in coupled superconducting
qubit pair

*Kuan-Hsun Chiang¹, Kai-I Chu^{1,2}, Xiao-Cheng
Lu³, Lan-Hsuan Lee³, Luo Uei Liang³, Chii-Dong
Chen³, Yung-Fu Chen¹ (1. Department of
Physics, National Central University, Jhongli
32001, Taiwan, 2. Institution of Atomic and
Molecular Sciences, Academia Sinica, Daan
10617, Taipei, Taiwan, 3. Institute of Physics,
Academia Sinica, Nankang 11529, Taipei,
Taiwan)

[P20-SF4-29] Towards a Quantum Otto Refrigerator in
a Superconducting Circuit

*Christoforus Dimas Satrya¹, Andrew Guthrie¹,
Yu-Cheng Chang¹, Paul Menczel², Franco Nori²,
Jukka Pekola¹ (1. Pico group, QTF Centre of
Excellence, Department of Applied Physics,
Aalto University School of Science, P.O. Box
13500,00076 Aalto, Finland, 2. Theoretical
Physics Laboratory, RIKEN Cluster for
Pioneering Research, Wako-shi, Saitama 351-
0198, Japan)

[P20-SF4-30] Voltage response of STM tunneling
currents on microtubules

“ Proposal of a new neural model by Orch
OR theory using entanglement”

*Yutaro Teranishi^{1,4}, Keiji Nakatsugawa^{3,4},
Yukinori Nishigami², Toshiyuki Nakagaki²,
Koichi Ichimura^{1,4}, Akiya Sean Eban^{1,4}, Yuta
Fukuda^{1,4}, Satoshi Tanda^{1,4} (1. Appl. Phys.
Hokkaido Univ., 2. Res. Inst. for Elec. Sci.
Hokkaido Univ., 3. National Institute for
Materials Science., 4. Center of Educ. and Res.
for Topological Sci. and Technol.)

Poster

[P20-SF5] Poster 2 remote

9:00 PM - 11:00 PM Poster (Main Hall B)

[P20-SF5-01] side-wall spacer passivated fabrication
process of niobium Josephson

*Robab Najafi jabdaraghi¹, Leif Grönberg¹,
Visa Vesterinen¹, Janne Lehtinen¹, Joonas
Govenius¹, Mika Prunnila¹ (1. VTT Technical
Research Centre of Finland)

[P20-SF5-02] Cryogenic tunnel-diode-oscillator for
qubit read-out

Daimo Yoshikawa^{1,2}, Ivan Grytsenko¹, Yuzuru
Kato³, Oleksiy Rybalko⁴, Hiroya Nakao⁵, Naoki

Yamamoto⁶, Denis Konstantinov⁷, *Erika Kawakami¹ (1. RIKEN, 2. Tokyo Univ., 3. Future Univ. Hakodate, 4. B. Verkin Institute for Low Temperature Physics, 5. Tokyo Institute of Technology, 6. Keio Univ., 7. OIST)

Finland, 2. QTF Centre of Excellence, Department of Applied Physics, Aalto University, Finland)

- [P20-SF5-03] Cryogenic n-MOSFET Voltage Amplifier with tunable power consumption for Quantum Transport applications
*George Charles Ridgard¹, Richard Haley¹, Jonathan Prance¹, Michael Thompson¹, Viktor Tsepelin¹ (1. Lancaster University Physics Department)
- [P20-SF5-04] On-chip demagnetisation cooling of electrons
*Francis Ciaran Bettsworth¹, Samuli Autti¹, Richard Haley¹, Alexander Jones^{1,2}, Jonathan Prance¹, Michael Thompson¹ (1. Lancaster University, 2. ISIS Muon and Neutron source - STFC)
- [P20-SF5-05] A Small Tunnel Junction and Coulomb Blockade realized by using an Ion-gated MoS₂-based Field Effect Transistor
*Natsuki Matsumoto¹, Aya Hamamoto¹, Ryosuke Ishiguro¹ (1. Japan Women's University)
- [P20-SF5-06] A Cryogenic Current Pre-Amplifier using a HBT OPamp
*Yoshiyuki Shibayama¹, Hiroto Koitabashi¹ (1. Muroran Institute of Technology)
- [P20-SF5-07] Thermodynamics of a Quantum Phase Slip: Heat Release and Detection
*Danilo Nikolic¹, Bayan Karimi², Jukka P. Pekola², Wolfgang Belzig¹ (1. University of Konstanz, 2. Aalto University)
- [P20-SF5-08] Enabling high gain based on three-wave mixing for a Josephson travelling-wave parametric amplifier
*Hampus Renberg Nilsson¹ (1. Chalmers University of Technology)
- [P20-SF5-09] Low-noise parametric microwave amplifier pumped by thermal self-oscillation
*Mohammad Tasnimul Haque¹, Marco Will¹, Dmitry Golubev², Pertti Hakonen¹ (1. Low Temperature Laboratory, Aalto University,

Mon. Aug 22, 2022

Poster

Poster

[P22-SF1] Poster

2:00 PM - 4:00 PM Poster (Main Hall B)

Poster

[P22-SF2A] Poster

2:00 PM - 4:00 PM Poster (Main Hall B)

Poster

[P22-SF2B] Poster

2:00 PM - 4:00 PM Poster (Main Hall B)

Poster

[P22-SF3A] Poster

2:00 PM - 4:00 PM Poster (Main Hall B)

Poster

[P22-SF3B] Poster

2:00 PM - 4:00 PM Poster (Main Hall B)

Poster

[P22-SF4] Poster

2:00 PM - 4:00 PM Poster (Main Hall B)

Poster

[P22-SF5] Poster

2:00 PM - 4:00 PM Poster (Main Hall B)

Poster

[P22-SF1] Poster 3 remote

9:00 PM - 11:00 PM Poster (Main Hall B)

[P22-SF1-01] Investigation of the Liquid ^4He thin film
using nanomechanics

*Hyunjin Choi¹, Ryundon Kim¹, Jinhoon Jeong¹,
Junho seo², Hyungsoon Choi¹ (1. KAIST, 2.
KRISS)

[P22-SF1-02] QUEST-DMC: Quantum enhanced
superfluid technologies for Dark Matter
and Cosmology

*Andrew Casey¹, Petri Heikkinen¹, Elizabeth
Leason¹, Lev Levitin¹, Jocelyn Monroe¹, Xavier
Rojas¹, John Saunders¹, Robert Smith¹, Stephen
West¹, Samuli Autti², Paolo Franchini^{1,2},

Richard Haley², Sergey Kafanov², Theo Noble²,
Jonathan Prance², Michael Thompson², Viktor
Tsepelin², Vladislav Zavjalov², Dmitry Zmeev²,
Mark Hindmarsh³, Stephan Huber³, Kuang
Zhang³, John March-Russell⁴ (1. Royal
Holloway, University of London, 2. Lancaster
University, 3. University of Sussex, 4.
University of Oxford)

[P22-SF1-03] Nonlinear Response of Fermion Layers
*Helga M. Boehm¹, Dominik J. Kreil¹, Cornelia
Schöller¹, Martin Panholzer² (1. Johannes
Kepler University Linz, 2. Uni Software Plus
GmbH, 4320 Perg, Austria)

[P22-SF1-04] Simultaneous measurements of an
ultrasound and a torsional oscillator for
 ^4He confined in a 1D nanoporous medium
*Ryo Kurosawa¹, Junko Taniguchi¹, Masaru
Suzuki¹ (1. University of Electro-
Communications)

[P22-SF1-05] Influence of Precoated ^4He layer on the
 ^3He Dimerization in Nanopores
*Azimjon Avazjonovich Temurjonov¹, Taku
Matsushita¹, Kazunori Amaike¹, Ryoichi
Inagaki¹, Mitsunori Hieda², Nobuo Wada¹,
Yasuhiro Shimizu¹, Yoshiaki Kobayashi¹,
Masayuki Itoh¹ (1. Nagoya University, 2.
Tokyo Medical and Dental University)

[P22-SF1-06] Channel diameter dependence of
superfluidity for ^4He in straight
nanometer-sized channels under pressure
*Junko Taniguchi¹, Kouetsu Mikami¹, Kento
Taniguchi¹, Masaru Suzuki¹ (1. University of
Electro-Communications)

[P22-SF1-07] Superflow of ^4He through an oriented
nanometer-sized porous membrane
*Masato Kuribara¹, Junko Taniguchi¹, Masaru
Suzuki¹ (1. University of Electro-
Communications)

[P22-SF1-08] Simultaneous measurements of ^4He
confined in an oriented porous membrane
by 32- and 100-kHz tuning forks
*Airi Kaneko¹, Yamato Ota¹, Junko Taniguchi¹,
Masaru Suzuki¹, Mitsunori Hieda² (1. Univ.
Electro-Communications, 2. Tokyo Medical and
Dental Univ.)

[P22-SF1-09] Examination of Possible Tomonaga-

- Luttinger Liquid Behavior for 1D ^3He Formed in Nanochannels
*Taku Matsushita¹, Azimjon A. Temurjonov¹, Ryosuke Shibatsuji¹, Yasuhiro Shimizu¹, Yoshiaki Kobayashi¹, Masayuki Itoh¹, Mitsunori Hieda², Nobuo Wada¹ (1. Nagoya University, 2. Tokyo Medical and Dental University)
- [P22-SF1-10] The Dielectric Anomaly of ^4He Films
*Fumiya Koike¹, Mani Michikawa¹, Tomoyuki Tani¹, Yusuke Nago¹, Keiya Shirahama¹ (1. Keio University)
- [P22-SF1-11] Dynamics of θ -solitons in the HPD state of superfluid $^3\text{He-B}$
*Vladislav Zavyalov¹ (1. Lancaster University)
- [P22-SF1-12] Anomalous Low-Temperature Phase in Superfluid ^3He Imbided in Anisotropic Aerogel
*John W. Scott¹, Man D. Nguyen¹, Daehan Park¹, William P. Halperin¹ (1. Northwestern University)
- [P22-SF1-13] Development of Angle Resolved Quantum Andreev Reflection Detector in Superfluid Helium 3
Satoshi Murakawa¹, *Kensuke Yoshida¹, Tomoya Miyase¹ (1. The University of Tokyo)
- [P22-SF1-14] Reversibility of electric response in superfluid helium
*Jean-Paul van Woensele^{1,2,3} (1. Okinawa Institute of Science and Technology, 2. Kyushu University, 3. Eindhoven University of Technology)
- [P22-SF1-15] Coupling electrons on helium to superconducting quantum circuits
*Camille A Mikolas¹ (1. Michigan State University)
- [P22-SF1-16] QUEST-DMC: Simulation studies for the detection of sub-GeV dark matter with a superfluid ^3He calorimeter
*Paolo Franchini^{1,2} (1. University of Lancaster, 2. Royal Holloway University of London)
- [P22-SF1-17] Smoothed particle simulations of superfluids
*Ondrej Kincl¹, David Schmoranzer¹, Michal Pavelka¹ (1. Charles University in Prague)
- [P22-SF1-18] Hysteretic current bistability of a thin tungsten filament in superfluid ^4He
*Che-Chi Shih¹, Chia-Chun Wei¹, Ming-Huei Huang¹, Pang-Chia Chang¹, Po-Wei Yu¹, Shang-Ho Lin¹, Ben-Li Young¹, Wen-Bin Jian¹, Kimitoshi Kono² (1. Department of Electrophysics, National Yang Ming Chiao Tung University, 2. International College of Semiconductor Technology, National Yang Ming Chiao Tung University)
- [P22-SF1-19] Neutron reflectivity as a probe of helium mixture films
*Oleg Kirichek¹, Chris Lawson¹, Christy Kinane¹, Andrew Caruana¹, Timothy Charlton², Peter McClintock³ (1. Rutherford Appleton Laboratory, STFC, UKRI, 2. Oak Ridge National Lab, 3. Lancaster University)
- [P22-SF1-20] Stimulated Brillouin gain spectroscopy of metastable superfluid helium-4
*Lionel Djadaojee^{1,2,3,4,5}, Jules Grucker^{1,2,3,4,5} (1. Laboratoire Kastler Brossel, 2. ENS-PSL Université, 3. Sorbonne Université, 4. CNRS, 5. Collège de France)
- [P22-SF1-22] STM Observation of Electronic Nematicity in the Dirac Semimetal BaNiS_2
*Christopher J. Butler¹, Yuhki Kohsaka¹, Youichi Yamakawa², M. Saeed Bahramy³, Seiichiro Onari², Hiroshi Kontani², Tetsuo Hanaguri¹, Shinichi Shamoto^{4,5} (1. RIKEN CEMS, 2. Dept. of Physics, Nagoya University, 3. Dept. of Physics & Astronomy, University of Manchester, 4. Neutron Science and Technology Center, CROSS, 5. Dept. of Physics, National Cheng Kung University)
- [P22-SF1-23] Incipient Pair-Fluctuation Effects on Quasiparticle Transport in Liquid ^3He
*Wei-Ting Lin¹, James A. Sauls¹ (1. Northwestern University)
- [P22-SF1-24] Collective mode resonances in superfluid $^3\text{He-}^4\text{He}$ mixtures
*Konstantin Eduardovich Nemchenko¹, Tatiana Gennadievna Vikhtinskaya¹, Svitlana Yyuriyivna Rogova¹, Nadegda Vladimirovna Gerashchenko¹ (1. V N Karazin Kharkiv National University)

- [P22-SF1-26] Falling Behavior of Superfluid ^4He Droplets
*Keita Onodera¹, Ryuma Nagatomo¹, Shiro Kashimoto¹, Ryuji Nomura¹ (1. Hokkaido University)
- [P22-SF1-27] Dripping Period of Superfluid ^4He via Film Flow
*Ryuma Nagatomo¹, Keita Onodera¹, Shiro Kashimoto¹, Ryuji Nomura¹ (1. Hokkaido University)
- [P22-SF1-28] Turbulent Plug in Channel Counterflow
*Gamu Asaka¹, Tomo Nakagawa¹, Makoto Tsubota^{1,2} (1. Osaka City University, 2. Osaka Metropolitan University)
- [P22-SF1-29] Relaxation experiments in the metastable pinning state of ^3He - ^4He mixture films
*Masaru Suzuki¹ (1. The University of Electro-Communications)

Poster

[P22-SF2A] Poster 3 remote
9:00 PM - 11:00 PM Poster (Main Hall B)

- [P22-SF2A-01] Pressure-induced Switching of Orbital Ordering in Iron-based Ladder Material, $\text{BaFe}_2(\text{S}_{1-x}\text{Se}_x)_3$
*Takuya Aoyama¹, Rinto Nojima¹, Yoshinori Imai¹, Kenya Ohgushi¹ (1. Tohoku University)
- [P22-SF2A-02] Electronic phase diagram in Te-annealed superconducting $\text{Fe}_{1+y}\text{Te}_{1-x}\text{Se}_x$ revealed by magnetic susceptibility
*Takenori Fujii¹, Yu Uezono², Takumi Otsuka², Shotaro Hagsawa², Takao Watanabe² (1. University of Tokyo, 2. Hirosaki University)
- [P22-SF2A-05] Data analysis on *ab initio* Hamiltonians of iron-based superconductors
*Kota Ido¹, Yuichi Motoyama¹, Kazuyoshi Yoshimi¹, Takahiro Misawa² (1. Institute for Solid State Physics, University of Tokyo, 2. Beijing Academy of Quantum Information Sciences)
- [P22-SF2A-06] Electronic phase diagrams of iron-based ladder materials $\text{BaFe}_2(\text{S}_{1-x}\text{Te}_x)_3$
*Kohei Kawaguchi¹, Yoshinori Imai¹, Takuya Aoyama¹, Kenya Ohgushi¹ (1. Tohoku Univ.)

- [P22-SF2A-08] Depairing current density along the c axis in $\text{BaFe}_2(\text{As}_{1-x}\text{P}_x)_2$ single crystals
Kotaro Jimbo¹, Yuki Motoyama¹, Yue Sun², Tsuyoshi Tamegai³, *Haruhisa Kitano¹ (1. Aoyama Gakuin University, 2. Southeast University, 3. The University of Tokyo)
- [P22-SF2A-09] Sr Substitution effect on Ca site for $\text{Ca}_3\text{Al}_2\text{O}_{5-y}\text{Fe}_2\text{As}_2$ 32522-type superconductor
*Hijiri Kito¹, Hiraku Ogino¹, Yoshiyuki Yoshida¹, Kenji Kawashima², Hiroshi Eisaki¹ (1. National Institute of Advanced Industrial Science and Technology (AIST), 2. IMRA JAPAN Co., Ltd)
- [P22-SF2A-10] Microscopic theory of nematicity in FeSe: Lifshitz transition below T_S , smallness of specific heat jump at T_S , and prominent nematic criticality
Rina Tazai¹, Shun Matsubara¹, Youichi Yamakawa¹, Seiichiro Onari¹, *Hiroshi Kontani¹ (1. Nagoya University)
- [P22-SF2A-11] Observation of orbital fluctuations by isotope Sb-NMR in iron-based superconductor
*Takayoshi Kouchi¹, Kyouhei Yoshinaga¹, Tomoya Asano¹, Sotaro Nishioka¹, Mitsuharu Yashima¹, Hidekazu Mukuda¹, Tsuyoshi Kawashima², Hirokazu Tsuji², Shigeki Miyasaka², Setsuko Tajima², Akira Iyo³ (1. Graduate School of Engineering Science, Osaka Univ., 2. Graduate School of Science, Osaka Univ., 3. National Institute of Advanced Industrial Science and Technology (AIST))
- [P22-SF2A-13] Odd-frequency pairing in the system with Bogoliubov Fermi surface
*Tatsuya Miki¹, Hiroaki Ikeda², Shintaro Hoshino¹ (1. Saitama University, 2. Ritsumeikan University)
- [P22-SF2A-14] Single Crystal Growth and Pressure effect on Superconductivity of $\text{FeSe}_{1-x}\text{Te}_x$
*Kiyotaka Miyoshi^{1,2}, Daichi Izuhara¹, Yumi Yamamoto¹, Gaku Motoyama¹, Masahiro Manago¹, Kenji Fujiwara¹, Shijo Nishigori³ (1. Department of Physics and Material

Science, Shimane University, Matsue690-8504, Japan, 2. Next Generation TATARA Co-Creation Centre, Shimane University, Matsue 690-8504, Japan, 3. Department of Materials Analysis, CIRS, Shimane University, Matsue 690-8504, Japan)

- [P22-SF2A-15] Interface Superconductivity in FeSe thin films on SrTiO₃ Grown by PLD
Tomoki Kobayashi¹, Hiroki Ogawa¹, *Fuyuki Nabeshima¹, Atsutaka Maeda¹ (1. Univ. of Tokyo)
- [P22-SF2A-16] Thickness-induced crossover from strong to weak collective pinning in exfoliated FeTe_{0.6}Se_{0.4} thin films at 1 T
*Ryoya Nakamura¹, Masashi Tokuda¹, Mori Watanabe¹, Masaki Maeda¹, Masamichi Nakajima¹, Yasuhiro Niimi^{1,2} (1. Dept. of Phys. Osaka Univ., 2. CSRN. Osaka Univ.)
- [P22-SF2A-17] Modulated Relaxation of Critical Current in (Ba_{1-x}Rb_x)Fe₂As₂
*Tong Ren¹, Sunseng Pyon¹, Tsuyoshi Tamegai¹ (1. The University of Tokyo)
- [P22-SF2A-21] **Low Temperature X-ray Diffraction Study on The Iron Pnictide Ba(Fe_{1-x}Co_x)₂As₂**
*Haruhiko Suzuki¹, Hiroshi Kaneko¹ (1. Kanazawa University)
- [P22-SF2A-22] Anomalous Peak Effects in Superconductors with Columnar Defects
*Tsuyoshi Tamegai¹, Wenjie Li¹, Jiachen Wang¹, Yuhang Zu¹, Ayumu Takahashi¹, Sunseng Pyon¹, Satoru Okayasu², Ataru Ichinose³ (1. The University of Tokyo, 2. Japan Atomic Energy Agency, 3. Central Research Institute of Electric Power Industry)
- [P22-SF2A-23] Onset Temperatures for the Superconducting Fluctuations in Te-annealed FeTe_{1-x}Se_x Single Crystals: Evidence for the BCS-BEC Crossover
*Takao Watanabe¹, Yu Uezono¹, Takumi Otsuka¹, Shotaro Hagsawa¹, Haruka Taniguchi², Michiaki Matsukawa², Takenori Fujii³ (1. Hirosaki University, 2. Iwate University, 3. University of Tokyo)
- [P22-SF2A-25] Nematic critical phenomena in Fe-based

superconductors based on Bethe-Salpeter equation method

*Youichi Yamakawa¹, Seiichiro Onari¹, Hiroshi Kontani¹ (1. Nagoya University)

Poster

[P22-SF2B] Poster 3 remote
9:00 PM - 11:00 PM Poster (Main Hall B)

- [P22-SF2B-26] Broadened Yu-Shiba-Rusinov states in dirty superconducting films
*Serafim Babkin^{1,2}, Anastasia Lyublinskaya^{1,2}, Igor Burmistrov^{1,3} (1. Landau Institute for Theoretical Physics, 2. Moscow Institute of Physics and Technology, 3. Laboratory for Condensed Matter Physics, HSE University,)
- [P22-SF2B-28] Anomalous superconducting diode effect in 2D Rashba superconductors
*Lorenz Fuchs¹, Denis Kochan¹, Christian Baumgartner¹, Simon Reinhard¹, Sergei Gronin², Geoffrey C. Gardner², Tyler Lindemann², Michael J. Manfra², Christoph Strunk¹, Nicola Paradiso¹ (1. University of Regensburg, 2. Purdue University)
- [P22-SF2B-29] Photonic heat transport in three terminal superconducting circuit
*Azat Gubaydullin¹, George Thomas¹, Dmitry Golubev¹, Dmitrii Lvov¹, Joonas Peltonen¹, Jukka Pekola¹ (1. Aalto University)
- [P22-SF2B-30] Transition Temperature and Vortex Structure of a Nanosized Dirty Superconductor
*Masaru Kato¹, Terukazu Nishizaki², Motoki Kawabata¹ (1. Osaka Metropolitan University, 2. Kyushu Sangyo University)
- [P22-SF2B-33] *T*-fluctuations and dynamics of the resistive transition in thin superconducting films
*Anna Kolbatova^{1,2}, Elmira Baeva^{1,2}, Nadezhda Titova², Soham Saha³, Alexandra Boltasseva³, Simeon Bogdanov^{4,5,6}, Alexandre Semenov², Vlad Shalaev³, Gregory Goltsman^{1,2}, Vadim Khrapai⁷ (1. National Research University Higher School of Economics, 2. Moscow Pedagogical State University, 3. Birck Nanotechnology Center and Elmore Family School of Electrical and Computer

- Engineering, Purdue University, 4.
Department of Electrical and Computer
Engineering, University of Illinois at Urbana-
Champaign, 5. Holonyak Micro and
Nanotechnology Lab, University of Illinois at
Urbana-Champaign, 6. Illinois Quantum
Information Science and Technology Center,
University of Illinois at Urbana-Champaign, 7.
Osipyan Institute of Solid State Physics,
Russian Academy of Sciences)
- [P22-SF2B-34] Thermoelectric Effects in Ferromagnet-
Superconductor Junctions
*Fumiya Kondo¹, Shun Tamura¹, Yukio
Tanaka¹, Pablo Buset² (1. Nagoya
University, 2. Autonomous University of
Madrid)
- [P22-SF2B-35] Gate-controlled supercurrent in vertical
ultra-short
superconductor/MoS₂/superconductor
junctions
Yung-Hsiang Tsai¹, Yun-Lien Hsieh¹, Chien-
Han Chen², Hiroshi Shimada³, Wen-Hao
Chang⁴, Cen-Shawn Wu², *Watson Kuo¹ (1.
National Chung Hsing University, 2. National
Changhua University of Education, 3. The
University of Electro-Communications, 4.
National Yang Ming Chiao Tung University)
- [P22-SF2B-36] Crossed Andreev Coupling in Parallel
InAs Nanowires
*Oliver Kurtosy¹, Zoltan Scherubl^{1,4}, Gergo
Fulop¹, Istvan Endre Lukacs², Thomas Kanne³,
Jesper Nygard³, Peter Makk¹, Szabolcs
Csonka¹ (1. Department of Physics,
Institute of Physics, Budapest University of
Technology and Economics, 2. Centre for
Energy Research, Institute of Technical
Physics and Materials Science, Budapest,
Hungary, 3. Center for Quantum Devices,
Niels Bohr Institute, University of
Copenhagen, 4. Univ. Grenoble Alpes, CEA)
- [P22-SF2B-37] Bogoliubov-de Gennes Approach to
Superconducting Nanowires
*German Lopez¹, Chumin Wang¹ (1.
Universidad Nacional Autonoma de Mexico)
- [P22-SF2B-38] Asymmetric behavior of weak magnetic
fields in nitride superconducting
nanowires
*Kazumasa Makise¹ (1. National
Astronomical Observatory of Japan)
- [P22-SF2B-39] Observation of Andreev molecule states
in hybridized planar Josephson junctions
*Sadashige Matsuo¹, Takaya Imoto^{2,1}, Yosuke
Sato¹, Tyler Lindemann³, Sergei Gronin³,
Geoffrey C. Gardner³, Sho Nakosai⁴, Yukio
Tanaka⁴, Michael J. Manfra³, Seigo Tarucha¹
(1. Riken, 2. Tokyo University of Science, 3.
Purdue University, 4. Nagoya University)
- [P22-SF2B-40] Influence of hydrogen adsorption on
superconducting Josephson
nanoconstrictions
*Kazuki Miyakawa¹, Hiroki Takata¹, Ryoma
Kato¹, Tatsuya Kawae¹ (1. Kyushu
University)
- [P22-SF2B-41] Localized Krylov– Bogoliubov-de Gennes
Method: Ultra-fast Numerical Approach
to Large-scale Inhomogeneous
Superconductor
*Yuki Nagai^{1,2} (1. CCSE, Japan Atomic
Energy Agency, 2. AIP, RIKEN)
- [P22-SF2B-42] Field-free superconducting diode effect
in polar superconductor/ferromagnet
multilayers
*Hideki Narita¹, Jun Ishizuka², Ryo
Kawarazaki¹, Daisuke Kan^{1,3}, Yoichi Shiota^{1,3},
Takahiro Moriyama^{1,3}, Yuichi Shimakawa^{1,3},
Alexey Ognev⁴, Alexander Samardak⁴, Youichi
Yanase^{5,6}, Teruo Ono^{1,3,4,7} (1. ICR, Kyoto
Univ., 2. ETH Zurich, 3. CSRN, Kyoto Univ., 4.
Far Eastern Federal Univ., 5. Dept. of Phys.,
Kyoto Univ., 6. Inst. for Molecular Science, 7.
CSRN, Osaka Univ.)
- [P22-SF2B-44] Supercurrent enhancement of an InAs
nanowire Josephson junction by
quasiparticle trapping
*Yosuke Sato¹, Kento Ueda², Yuusuke
Takeshige¹, Hiroshi Kamata¹, Kan Li³, Lars
Samuelson⁴, Hong Qi Xu^{3,4,5}, Seigo Tarucha¹
(1. Riken, 2. Univ. of Tokyo, 3. Peking Univ.,
4. Lund Univ., 5. Beijing Academy of Quantum
Information Sciences)
- [P22-SF2B-45] Experimental signatures of Lifshitz-
invariants in the kinetic inductance of

Rashba superconductors

*Nancy Schmidt¹, Lorenz Fuchs¹, Denis Kochan¹, Maximilian-Andreas Ufer¹, Simon Reinhardt¹, Michael Prager¹, Matthias Kronseder¹, Dominique Bougeard¹, Sergei Gronin², Geoffrey Gardner², Tyler Lindemann², Michael Manfra², Nicola Paradiso¹, Christoph Strunk¹ (1. University of Regensburg, 2. Purdue University)

- [P22-SF2B-46] Detecting Induced $p \pm ip$ Pairing at the Al-InAs Interface with a Quantum Microwave Circuit
Duc Phan¹, *Jordan Senior¹, Areg Ghazaryan¹, Mehdi Hatefipour², William M. Strickland², Javad Shabani², Maksym Serbyn¹, Andrew P. Higginbotham¹ (1. Institute of Science and Technology Austria, 2. Department of Physics, New York University)
- [P22-SF2B-47] **CQPS junctions in inductive environment**
*Rais Shaikhaidarov¹ (1. Royal Holloway University of London)
- [P22-SF2B-48] **Zeeman driven superconductor insulator transition in strongly disordered MoC film. STM and transport studies in transverse magnetic field.**
Martin Žemlička^{4,1,3}, Michal Kopčík¹, Marek Kuzmiak^{1,5}, *Pavol Szabo¹, Tomáš Samuely², Jozef Kačmarčík¹, Pavol Neilinger³, Miroslav Grajcar³, Peter Samuely¹ (1. Centre of Low Temperature Physics, Institute of Experimental Physics, Slovak Academy of Sciences, 04001 Košice, Slovakia, 2. Centre of Low Temperature Physics, Faculty of Science, P. J. Šafárik University, 04001 Košice, Slovakia, 3. Department of Experimental Physics, Comenius University, 84248 Bratislava, Slovakia, 4. Institute of Science and Technology Austria, am Campus 1, 3400 Klosterneuburg, Austria, 5. Faculty of Electrical Engineering and Informatics, Technical University, 04001 Košice, Slovakia)
- [P22-SF2B-49] Induced Polarized Spin-Triplet pairing in s-wave SC/Metal with Magnetic field/Diffusive Metal Junction
*Shun Tamura¹, Takehito Yokoyama², Yukio

Tanaka¹ (1. Nagoya University, 2. Tokyo Tech)

- [P22-SF2B-50] Microwave Devices Using Graphene Josephson Junctions
*Max Frederick Taylor^{1,2}, Emily Gamblen^{1,2}, Roman Gorbachev^{2,3}, Artem Mishchenko^{2,3}, Jonathan Prance¹, Wendong Wang^{2,3}, Michael Thompson¹ (1. Lancaster University, 2. University of Manchester, 3. National Graphene Institute)
- [P22-SF2B-51] Collective modes in non-uniform superconductor
*Anton Vorontsov¹ (1. Montana State University)
- [P22-SF2B-55] Fine-Tuned Interplay of Density of States, Phonon Frequencies, Lattice Expansion, and T_c in Superconducting InTe
*Markus Kriener¹, M. Saeed Bahramy², Yoshinori Tokura^{1,3,4}, Yasujiro Taguchi¹ (1. RIKEN Center for Emergent Matter Science (CEMS), Wako 351-0198, Japan, 2. Department of Physics and Astronomy, The University of Manchester, Manchester M13 9PL, United Kingdom, 3. Department of Applied Physics and Quantum-Phase Electronics Center (QPEC), The University of Tokyo, Tokyo 113-8656, Japan, 4. Tokyo College, University of Tokyo, Tokyo 113-8656, Japan)
- [P22-SF2B-59] DC-Current Stimulated Superfluid Stiffness and BKT-Transition in Ultrathin Superconducting Films
*Alexander Weitzel¹, Lea Pfaffinger¹, Thomas Huber¹, Klaus Kronfeldner¹, Lorenz Fuchs¹, Sven Linzen², Evgeni Ilichev², Nicola Paradiso¹, Christoph Strunk¹ (1. University of Regensburg, 2. Leibniz-Institut für Photonische Technologien e.V.)

Poster

[P22-SF3A] Poster 3 remote
9:00 PM - 11:00 PM Poster (Main Hall B)

[P22-SF3A-01] Quantum Spin-Nematic Order in Spin-1/2 Square-Lattice Frustrated Ferromagnets

*Matthias Gohlke¹, Tokuro Shimokawa¹,
Jonas Sonnenschein¹, Nic Shannon¹ (1.
Okinawa Institute of Science and Technology
Graduate University)

[P22-SF3A-02] **Observation of a Linked Loop Quantum
State in a Topological Magnet**

*Ilya Belopolski^{1,2} (1. RIKEN, Center for
Emergent Science, 2. Princeton University)

[P22-SF3A-04] **High Frequency ESR Measurements of
S=1 Spin Gap System CsFeCl₃**

*Susumu Okubo¹, Kazuma Segawa¹, Kyohei
Naka¹, Teppei Suzuki¹, Shigeo Hara¹, Takahiro
Sakurai¹, Masashige Matsumoto², Nobuyuki
Kurita³, Hidekazu Tanaka³ (1. Kobe Univ., 2.
Shizuoka Univ., 3. Tokyo Institute of
Technology)

[P22-SF3A-05] **Coupled frustrated ferromagnetic and
antiferromagnetic quantum spin chains
in the quasi-one-dimensional mineral
antlerite, Cu₃SO₄(OH)₄**

*Darren C. Peets¹, Anton A. Kulbakov¹, Denys
Kononenko², Satoshi Nishimoto^{2,3}, Quirin
Stahl¹, Maxim Avdeev⁴, Aswathi
Mannathanath Chakkingal¹, Manuel Feig⁵,
Roman Gumeniuk⁵, Sebastian Gass², Laura
Teresa Corredor Bohorquez², Anja U. B.
Wolter^{2,6}, Hagen Poddig⁷, Ines Puente-
Orench^{8,9}, Andrew Wildes⁹, Jochen Geck^{1,6},
Oleg Janson², Dmytro S. Inosov^{1,6} (1.
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3. Institut fuer Theoretische Physik,
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Complexity and Topology in Quantum
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Anorganische Chemie II, Technische

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Materiales de Aragon (INMA), CSIC-
Universidad de Zaragoza, Zaragoza 50009,
Spain, 9. Institut Laue-Langevin, 71 Avenue
des Martyrs, CS 20156, CEDEX 9, 38042
Grenoble, France)

[P22-SF3A-06] **³⁵Cl NMR study of spin dynamics in an
anisotropic triangular lattice
antiferromagnet Ca₃ReO₅Cl₂**

*Diep Minh Nguyen¹, Azimjon Avazjonovich
Temurjonov¹, Yasuhiro Shimizu¹, Yoshiaki
Kobayashi¹, Taku Matsushita¹, Daigoro Hirai²,
Zenji Hiroi² (1. Department of Physics,
Nagoya University, 2. Institute for Solid
State Physics, University of Tokyo)

[P22-SF3A-07] **Quantum effect in monoaxial chiral
ferromagnetic chain**

Sohei Kodama¹, Akihiro Tanaka², *Yusuke
Kato¹ (1. Univ. Tokyo, 2. NIMS)

[P22-SF3A-08] **Quantum phase transition and magneto-
transport properties of a chiral
helimagnet FeGe under pressure**

*Yukako Fujishiro¹, Chieko Terakura¹,
Atsushi Miyake², Masashi Tokunaga², Naoya
Kanazawa³, Katsuya Shimizu⁴, Yoshinori
Tokura^{1,3,5} (1. RIKEN Center for Emergent
Matter Science (CEMS), 2. The Institute for
Solid State Physics (ISSP), University of
Tokyo, 3. Department of Applied Physics,
University of Tokyo, 4. KYOKUGEN, Graduate
School of Engineering Science, Osaka
University, 5. Tokyo College, University of
Tokyo)

[P22-SF3A-11] **Quantum spin fluctuation of Mo spins in
geometrically
frustrated pyrochlore antiferromagnet
Lu₂Mo₂O₅N₂**

*Sourav Kumar Dey¹, Kodai Ishida², Hirotaka
Okabe¹, Masatoshi Hiraishi¹, Akihiro Koda¹,
Sohtaro Kanda¹, Yukinori Nagatani¹, Koichiro
Shimomura¹, Jun-ichi Yamaura³, Hiroshi
Kageyama², Ryosuke Kadono¹ (1. High
Energy Accelerator Research Organization
(KEK), 2. Kyoto University, 3. Tokyo Institute
of Technology)

- [P22-SF3A-12] Nematic Tomonaga-Luttinger Liquid Phase in an $S=1/2$ Ferromagnetic-Antiferromagnetic Bond-Alternating Chain
*Takashi Tonegawa^{1,2,3}, Kiyomi Okamoto², Kiyohide Nomura⁴, Toru Sakai^{2,5} (1. Kobe University, 2. University of Hyogo, 3. Osaka Metropolitan University, 4. Kyushu University, 5. National Institute for Quantum Science and Technology (QST))
- [P22-SF3A-13] Field-Induced Spin Nematic Liquid in the $S=1/2$ Bond-Alternating Chain with the Anisotropy
*Ryosuke Nakanishi¹, Takaharu Yamada¹, Rito Furuchi¹, Hiroki Nakano¹, Hirono Kaneyasu¹, Kiyomi Okamoto¹, Takashi Tonegawa^{1,2,3}, Toru Sakai^{1,4} (1. University of Hyogo, 2. Kobe University, 3. Osaka Metropolitan University, 4. QST SPring-8)
- [P22-SF3A-14] Kitaev spin liquid signature in the hyperhoneycomb iridate
*Yuya Haraguchi¹, Akira Matsuo², Koichi Kindo², Hiroko Aruga Katori¹ (1. Tokyo University of Agriculture and Technology, 2. The Institute for Solid State Physics, The University of Tokyo)
- [P22-SF3A-15] Investigation of strongly hybridized electro-nuclear spin states in LiHoF₄ using cavity Magnon-Polariton technique
*Yikai Yang¹ (1. Ecole polytechnique federale de Lausanne)
- [P22-SF3A-16] Observation of ferroelectricity in two-dimensional antiferromagnet (C₂H₅NH₃)₂CuCl₄ using birefringence imaging techniques
*Yoko MIURA¹, Ryusei IBUSHI², Hirotaka MANAKA² (1. National Institute of Technology, Suzuka College, 2. Kagoshima University)
- [P22-SF3A-17] Magneto-optical responses of massive Dirac fermions derived from kagome magnet TbMn₆Sn₆
*Kentarō Shoriki¹ (1. The University of Tokyo)
- [P22-SF3A-18] NMR study of magnetic structure and spin dynamics in α -CoV₂O₆
*Yu Kawasaki¹, Hiro Mori¹, Yutaka Kishimoto¹, Koichi Magishi¹, Koichi Nakamura¹, Zhangzhen He², Mitsuru Itoh³ (1. Tokushima University, 2. Chinese Academy of Sciences, 3. Tokyo Institute of Technology)
- [P22-SF3A-19] Field-induced quantum magnetism in the radical salt [*o*-MePy-V-(*p*-Br)₂]FeCl₄
*Yoshiki Iwasaki¹, Takanori Kida², Masayuki Hagiwara², Hironori Yamaguchi³ (1. Nihon Univ., 2. AHMF, Osaka Univ., 3. Osaka Metropolitan Univ.)
- [P22-SF3A-20] Translational Symmetry Broken Magnetization Plateau of the $S=2$ Antiferromagnetic Chain with Anisotropies
*Takaharu Yamada¹, Ryosuke Nakanishi¹, Rito Furuchi¹, Hiroki Nakano¹, Hirono Kaneyasu¹, Kiyomi Okamoto¹, Takashi Tonegawa^{1,3,4}, Toru Sakai^{1,2} (1. University of Hyogo, 2. QST SPring-8, 3. Osaka Metropolitan University, 4. Kobe University)
- [P22-SF3A-21] Universal scaling of the specific heat in $S=1/2$ quantum kagome antiferromagnet herbertsmithite
*Hinako Murayama¹, Takahiro Tominaga², Tomoya Asaba², Andre de Oliveira Silva², Yuki Sato¹, Hiroki Suzuki², Yuzuki Ukai², Shota Suetsugu², Yuichi Kasahara², Ryutarō Okuma³, Itamar Kimchi⁴, Yuji Matsuda² (1. RIKEN, 2. Kyoto University, 3. University of Oxford, 4. Georgia Institute of Technology)
- [P22-SF3A-22] Transport and Magnetic Properties of Europium-based Quasi-one-dimensional Compounds Eu₂BiS₄ and Eu_{4.1}Bi₂S₄
*Yu Yamane¹, Akira Yamaguchi¹, Akihiko Sumiyama¹ (1. University of Hyogo)
- [P22-SF3A-23] High-pressure synthesis assisted by first-principles calculations for novel A-site ordered perovskite-type ferrites
*Masaho Onose^{1,2}, Hidefumi Takahashi², Hajime Sagayama³, Yuichi Yamasaki⁴, Shintaro Ishiwata² (1. The University of Tokyo, 2. Osaka University, 3. High Energy Accelerator Research Organization, 4.

- National Institute for Materials Science)
- [P22-SF3A-24] Electromagnons of $\text{Sr}_2\text{CoSi}_2\text{O}_7$ in the Forced-ferromagnetic State
*Mitsuru Akaki¹, Yasuo Narumi², Masayuki Hagiwara², Hiroyuki Nojiri¹ (1. Tohoku Univ., 2. Osaka Univ)
- [P22-SF3A-25] NMR Study of Single Crystal of Spin-1/2 Antiferromagnetic Chain $\text{D-F}_5\text{PNN}$ crossing Critical Field Region
*Yutaka Fujii¹, Yusuke Takahashi¹, Kaoru Maruyama¹, Yuya Ishikawa¹, Kohei Nakagawa¹, Konami Izumi², Naoko Sakai³, Kunio Taguma³ (1. Univ. of Fukui, 2. AIST, 3. Kyoto Univ.)
- [P22-SF3A-26] Thermal transport of a layered organic Mott insulator $\kappa\text{-(ET)}_2\text{Cu[N(CN)}_2\text{]Cl}$
*Tetsuya Furukawa¹, Hiromi Taniguchi², Takahiko Sasaki¹ (1. Tohoku University, 2. Saitama University)
- [P22-SF3A-27] NMR study on Bose-Einstein condensation under magnetic fields in quasi-two-dimensional antiferromagnet YbCl_3
*Eria Imada¹, Yosuke Matsumoto², Simon Schnierer², Jan Bruin², Kentaro Kitagawa¹, Hidenori Takagi^{1,2} (1. The Univ. of Tokyo, 2. Max Planck Institute for Solid State Research)
- [P22-SF3A-28] Stability of Ferromagnetic Phase and SPT Phase in the 1D Spin-1 Kondo-Heisenberg Model
*Riku Masui^{1,2}, Keisuke Totsuka² (1. Kyoto Univ., 2. YITP)
- [P22-SF3A-29] NMR study of an organic electric-dipole liquid material
*Mizuki Urai¹, Kazuya Miyagawa¹, Yuta Watanabe¹, Elena I. Zhilyaeva², Svetlana A. Torunova², Rimma N. Lyubovskaya², Natalia Drichko^{3,4}, Kazushi Kanoda¹ (1. Department of Applied Physics, University of Tokyo, 2. Institute of Problems of Chemical Physics RAS, 3. The Johns Hopkins University, 4. ISSP, University of Tokyo)
- [P22-SF3A-30] Magnetic plateaux of the frustrated magnet, pseudomalachite
*Hikomitsu Kikuchi¹, Yutaka Fujii¹, Akira Matsuo², Koichi Kindo², Utami Widyaiswari^{3,4}, Isao Watanabe^{3,4} (1. University of Fukui, 2. The University of Tokyo, 3. RIKEN Nishina Center, 4. Universitas Indonesia)
- [P22-SF3A-31] Magnetization Process and ESR Study of Spin-1/2 Low Dimensional Antiferromagnet, Henmilite
*Kanata Hayashi¹, Kouhei Hirozawa¹, Yusuke Takahashi¹, Yuya Ishikawa¹, Yutaka Fujii¹, Takayuki Asano², Hajime Yamamoto³, Hiroyuki Kimura³, Terutoshi Sakakura³, Yukio Noda³, Akira Matsuo⁴, Koichi Kindo⁴, Hideyuki Takahashi⁵, Seitaro Mitsudo^{1,2} (1. Research Center for Development of Far-Infrared Region, University of Fukui, 2. Department of Applied Physics, University of Fukui, 3. Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, 4. ISSP, The University of Tokyo, 5. Molecular Photoscience Research Center, Kobe University)
- [P22-SF3A-32] Magnetic phase diagram of $\text{Ba}_3\text{CoSb}_2\text{O}_9$ determined by magnetic susceptibility measured with a proximity detector oscillator
*Katsuki Nihongi¹, Takanori Kida¹, Yasuo Narumi¹, Nobuyuki Kurita², Hidekazu Tanaka², Kouichi Kindo³, Masayuki Hagiwara¹ (1. AHMF, Grad. Sch. of Sci., Osaka Univ., 2. Dep. of Phys., Tokyo Inst. of Tech, 3. ISSP, The Univ. of Tokyo)
- [P22-SF3A-34] Low temperature physical properties of RuCl_3 single crystal
*Takuto Nakazawa¹, Akihiro Fukawa¹, Jousuke Tamura¹, Atushi Yamasaki², Kouichi Takase¹ (1. Graduate School of Science and Technology, Nihon University, 2. Faculty of Science and Engineering, Konan University)
- [P22-SF3A-35] Anomalous spin excitation in a frustrated spin gap system $\text{SrCu}_2(\text{BO}_3)_2$
*Shin Miyahara¹ (1. Fukuoka University)
- [P22-SF3A-36] ¹⁵In-NMR study for field-induced magnetic structure in chiral polar magnet $\text{Ni}_2\text{InSbO}_6$
*Yoshihiko IHARA¹, Ryoga Hiyoshi¹, Masakazu Shimohashi¹, Michihiro Hirata², Takahiko

Sasaki², Yusuke Araki³, Yusuke Tokunaga³,
Taka-hisa Arima^{3,4} (1. Department of
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of Advanced Materials Science, University of
Tokyo, 4. RIKEN Center for Emergent Matter
Science (SEMS))

[P22-SF3A-37] μ SR study on the diamond lattice

magnet $\text{Cu}_{1-x}\text{Zn}_x\text{Rh}_2\text{O}_4$

*Ichihiko Yamauchi¹, Chennan Wang²,
Hubertus Luetkens², Jumpei G Nakamura³,
Akihiro Koda³, Tatsuya Kawae⁴, Xu-Guang
Zheng¹ (1. Saga University, 2. Paul Scherrer
Institute, 3. High Energy Accelerator
Research Organization (KEK), 4. Kyusyu
University)

[P22-SF3A-38] Pressure Effect of Spin Gap Substance

$\text{Cu}_2(\text{C}_5\text{H}_{12}\text{N}_2)_2\text{Cl}_4$

*Takahiro Sakurai¹, Ryosuke Takehara², Naoki
Nagasawa², Hideyuki Takahashi³, Makoto
Saga⁴, Kazuyuki Takahashi², Susumu Okubo³,
Hitoshi Ohta^{2,3} (1. Research Facility Center
for Science and Technology, Kobe University,
2. Graduate School of Science, Kobe
University, 3. Molecular Photoscience
Research Center, Kobe University, 4.
Graduate School of Human Development and
Environment, Kobe University)

[P22-SF3A-39] ¹³C-NMR study on the Dirac-nodal-line
material $[\text{Ni}(\text{dmdt})_2]$

*Takahiko Sekine¹, Keishi Sunami¹, Takumi
Hatamura¹, Kazuya Miyagawa¹, Kenta
Akimoto², Biao Zhou², Shoji Ishibashi³, Akiko
Kobayashi², Kazushi Kanoda¹ (1. Univ. of
Tokyo, 2. Nihon Univ., 3. AIST)

[P22-SF3A-40] The Generalized Thouless Pump and
Fermionic Matrix Product State

*Shuhei Ohyama¹, Ken Shiozaki¹, Masatoshi
Sato¹ (1. Kyoto Univ. YITP)

[P22-SF3A-41] Specific heat of topological semimetals
and insulators

*Gaku Eguchi¹, Mathieu Taupin¹, Kenta
Kuroda², Mario Novak³, Neven Barisic^{3,1},
Xinlin Yan¹, Diego A. Zocco¹, Andrey
Prokofiev¹, Akio Kimura², Silke Paschen¹ (1.

Institute of Solid State Physics, TU Wien, 2.
Graduate School of Advance Science and
Engineering, Hiroshima University, 3.
Department of Physics, Faculty of Science,
University of Zagreb)

[P22-SF3A-42] Magnetic Skyrmion Lattice in Eu-based
trillium lattice compound EuPtX ($X=\text{Si}$,
 Ge)

*Koji Kaneko¹, Chihiro Tabata², Tetsuya
Takeuchi³, Matthias D Frontzek⁴, Masaaki
Matsuda⁴, Kazuki Ohishi⁵, Takashi U Ito¹, Koji
Munakata⁵, Ryoji Kiyonagi¹, Masashi
Kakihana⁶, Masato Hedo⁶, Takao Nakama⁶,
Yoshichika Onuki⁷ (1. Japan Atomic Energy
Agency, 2. Kyoto University, 3. Osaka
University, 4. Oak Ridge National Laboratory,
5. Comprehensive Research Organization for
Science and Society, 6. University of the
Ryukyus, 7. RIKEN)

[P22-SF3A-43] Dirac Nodal Line Semimetals in Three-
Dimensional Gyroid Structure

*Masahisa Tsuchiizu¹ (1. Nara Women's
University)

Poster

[P22-SF3B] Poster 3 remote

9:00 PM - 11:00 PM Poster (Main Hall B)

[P22-SF3B-01] Mid-infrared injection current in
magnetic Rashba semiconductor
(Ge,Mn)Te

*Tsubasa Takagi¹, Ryutaro Yoshimi², Atsushi
Tsukazaki³, Kei S. Takahashi², Masashi
Kawasaki^{1,2}, Yoshinori Tokura^{1,2,4}, Naoki
Ogawa^{1,2} (1. Department of Applied Physics,
the University of Tokyo, 2. RIKEN Center for
Emergent Matter Science (CEMS), 3. Institute
for Materials Research (IMR), Tohoku
University, 4. Tokyo College, the University
of Tokyo)

[P22-SF3B-02] Spontaneous Hall effect in a triangular
lattice $[\text{Ca}_2\text{CoO}_3]_{0.62}[\text{CoO}_2]$

*Hayato Seki¹, Ryuji Okazaki¹ (1. Tokyo
Univ. of Sci.)

[P22-SF3B-03] Magneto-optical spectroscopy on Weyl
nodes for anomalous and topological
Hall effects in chiral-lattice magnet

MnGe

*Yoshihiro Okamura¹, Yudai Hayashi¹, Naoya Kanazawa¹, Tonghua Yu¹, Takashi Koretsune², Ryotaro Arita^{1,3}, Atsushi Tsukazaki⁴, Masakazu Ichikawa¹, Masashi Kawasaki^{1,3}, Yoshinori Tokura^{1,3,5}, Youtarou Takahashi^{1,3}
(1. Department of Applied Physics, University of Tokyo, 2. Department of Physics, Tohoku University, 3. RIKEN CEMS, 4. Institute for Materials Research, Tohoku University, 5. Tokyo College, University of Tokyo)

[P22-SF3B-04] Quantum transport in spin-1 fermion systems

*Risako Kikuchi¹, Takumi Funato², Ai Yamakage¹ (1. Nagoya University, 2. Keio University)

[P22-SF3B-05] Strong in-plane magnetic anisotropy in Weil semimetal related material CeSiAl

*Takashi Nishioka¹ (1. Kochi University)

[P22-SF3B-06] Current-induced Spin Polarization in Weyl Semimetals and Magnetic Thin Films Probed by Magneto-Optical Kerr Effect

*Tomoyuki Yokouchi¹, Teppei Hatajiri¹, Yu Miyazaki¹, Yuki Shiomi¹ (1. The University of Tokyo)

[P22-SF3B-07] Large optical anomalous Hall effect in ferromagnetic van der Waals semimetal Fe₃GeTe₂ thin film

*Yoshihiro Kato¹, Yoshihiro Okamura¹, Susumu Minami^{2,3}, Reika Fujimura¹, Masataka Mogi^{3,4}, Ryutaro Yoshimi³, Atsushi Tsukazaki⁵, Kei S. Takahashi³, Masashi Kawasaki^{1,3}, Ryotaro Arita^{1,3}, Yoshinori Tokura^{1,3,6}, Youtarou Takahashi^{1,3} (1. Department of Applied Physics and Quantum Phase Electronics Center, The University of Tokyo, 2. Department of Physics, The University of Tokyo, 3. RIKEN Center for Emergent Matter Science (CEMS), 4. Department of Physics, Massachusetts Institute of Technology, 5. Institute for Materials Research, Tohoku University, 6. Tokyo College, University of Tokyo)

[P22-SF3B-08] Non-Hermitian Topology of Optical

Metamaterials with Negative Permittivity and Permeability

*Takuma Isobe¹, Tsuneya Yoshida¹, Yasuhiro Hatsugai¹ (1. University of Tsukuba)

[P22-SF3B-09] Low temperature ordered state in Dirac electron phase of

organic conductor α -(ET)₂I₃

*Daisuke Inoue¹, Daigo Ohki¹, Akito Kobayashi¹ (1. Nagoya University)

[P22-SF3B-10] Topological phases protected by shifted sublattice symmetry in open quantum systems

*Makio Kawasaki¹, Ken Mochizuki², Hideaki Obuse^{1,3} (1. Hokkaido Univ., 2. Riken, 3. Univ. of Tokyo)

[P22-SF3B-11] Weyl point engineering in multifold chiral fermions

*Koki Satow¹, Ai Yamakage¹ (1. Nagoya Univ.)

[P22-SF3B-12] Versatile electronic states in epitaxial thin films of (Sn-Pb-In)Te

*Ryutaro Yoshimi¹, Makoto Masuko², Naoki Ogawa¹, Minoru Kawamura¹, Atsushi Tsukazaki³, Kei S Takahashi¹, Masashi Kawasaki^{2,1}, Yoshinori Tokura^{1,2,4} (1. RIKEN CEMS, 2. Univ. of Tokyo, 3. Tohoku Univ., 4. Tokyo College)

[P22-SF3B-13] Geometrical Hall effect and its field-anisotropic response in pyrochlore molybdates

*Hikaru Fukuda¹, Kentaro Ueda¹, Yoshio Kaneko², Ryosuke Kurihara^{3,4}, Atsushi Miyake³, Masashi Tokunaga³, Kosuke Karube², Yasujiro Taguchi², Yoshinori Tokura^{1,2,5} (1. Univ. of Tokyo, 2. RIKEN-CEMS, 3. Institute for Solid State Physics (ISSP), 4 Tokyo University of Science, 5. Tokyo collage, Univ. of Tokyo)

[P22-SF3B-14] Study of anomalous Hall effect and quantum oscillation in EuMg₂Bi₂ with field-tunable Weyl points

*Masaki Kondo¹, Hideaki Sakai¹, Masayuki Ochi^{1,2}, Ryosuke Kurihara^{3,4}, Atsushi Miyake³, Yuichi Yamasaki^{5,6,8}, Masashi Tokunaga³, Hironori Nakao⁷, Kazuhiko Kuroki¹, Takanori Kida⁹, Masayuki Hagiwara⁹, Hiroshi

Murakawa¹, Noriaki Hanasaki¹ (1. Department of Physics, Osaka University, 2. Forefront research Center, Osaka University, 3. The Institute for Solid State Physics, The University of Tokyo, 4. Department of Physics, Faculty of Science and Technology, Tokyo University of Science, 5. National Institute for Material Science (NIMS), 6. Center for Emergent Matter Science (CEMS), RIKEN, 7. Institute of Material Structure Science (IMSS), KEK, 8. JST-PRESTO, 9. Center for Advanced High Magnetic Field Science (AHMF), Graduate School of Science, Osaka University)

[P22-SF3B-15] **Anomalies in the Quantum Limit of the Weyl Semimetal TaAs**

*Jozef Kacmarcik¹, Zuzana Medvecká², Elena Hassinger^{2,3}, Alexandre Pourret⁴, Parisa Mokhtari^{2,3}, Maxence Grandadam², Gabriel Seyfarth⁵, Albin Demuer⁶, Thierry Klein⁷, Peter Samuely¹, Christophe Marcenat⁴ (1. Centre of Low Temperature Physics, Institute of Experimental Physics, Slovak Academy of Sciences, Watsonova 47, SK-04001 Košice, Slovakia, 2. Max Planck Institute for Chemical Physics of Solids, 01187 Dresden, Germany, 3. Physik-Department, Technische Universität München, 85748 Garching, Germany, 4. Université Grenoble Alpes, CEA, IRIG, PHELIQS, LATEQS, F-38000 Grenoble, France, 5. LNCMI-EMFL, CNRS, Univ. Grenoble Alpes, INSA-T, UPS, Grenoble, France, 6. LNCMI-EMFL, CNRS UPR3228, Univ. Grenoble Alpes, Univ. Toulouse, Univ. Toulouse 3, INSA-T, Grenoble and Toulouse, France, 7. Université Grenoble Alpes, CNRS, Grenoble INP, Institut Néel, F-38000 Grenoble, France)

[P22-SF3B-16] **High-field NMR study of black phosphorous under hydrostatic pressure**

*Yusuke Nakai¹, Takuto Fujii¹, Kenta Fujiwara¹, Michihiro Hirata², Yasumasa Hasegawa¹, Yuichi Akahama¹, Koichi Ueda¹, Takeshi Mito¹ (1. Graduate School of Science, University of Hyogo, 2. Institute for Materials Research, Tohoku Univ.)

[P22-SF3B-17] **Surface electronic state of Kondo insulator SmB_6 studied by point-contact spectroscopy**

*Tsubasa Teramoto¹, Takuya Takahashi¹, Takuro Harada¹, Masanobu Shiga¹, Fumitoshi Iga², Tatsuya Kawae¹ (1. Department of Applied Quantum Physics, Kyushu university, 2. College of Science, Ibaraki University.)

[P22-SF3B-18] **Noble-metal free spintronic system with proximity-enhanced topological surface-ferromagnetic state of FeSi above room temperature**

*Tomohiro Hori¹, Naoya Kanazawa¹, Motoaki Hirayama^{1,2}, Akira Matsui¹, Takuya Nomoto¹, Ryotaro Arita^{1,2}, Kohei Fujiwara³, Atsushi Tsukazaki³, Masakazu Ichikawa¹, Masashi Kawasaki^{1,2}, Yoshinori Tokura^{1,2,4} (1. Department of Applied Physics, University of Tokyo, 2. RIKEN Center for Emergent Matter Science, 3. Institute for Materials Research, Tohoku University, 4. Tokyo College, University of Tokyo)

[P22-SF3B-19] **Generalized adiabatic pumps in quantum spin systems**

*Ken Shiozaki¹ (1. Kyoto University)

[P22-SF3B-20] **Bulk-boundary correspondence of non-Hermitian point gap topology**

*Daichi Nakamura¹, Takumi Bessho², Masatoshi Sato¹ (1. Yukawa Institute for Theoretical Physics, Kyoto University, 2. Corporate Research & Development Center, Toshiba Corporation, Kawasaki, Japan)

[P22-SF3B-21] **The characterization of non-Hermitian skin effect in disordered systems by condition number**

*Yusuke Nakai^{1,2}, Nobuyuki Okuma^{1,2}, Masatoshi Sato^{1,2} (1. Yukawa Institute of Theoretical Physics, Kyoto University, 2. Center for Gravitational Physics and Quantum Information (CGQI))

[P22-SF3B-23] **Chirality flip of Weyl nodes and its manifestation in strained MoTe_2**

*Viktor Konye¹, Adrien Bouhon², Ion Cosma Fulga¹, Robert-Jan Slager³, Jeroen van den Brink^{1,4}, Jorge I. Facio¹ (1. IFW Dresden and Würzburg-Dresden Cluster of Excellence

- ct.qmat, Dresden, Germany, 2. Nordic Institute for Theoretical Physics (NORDITA), Stockholm, Sweden, 3. CM Group, Cavendish Laboratory, University of Cambridge, Cambridge, United Kingdom, 4. Institute for Theoretical Physics, TU Dresden, Dresden, Germany)
- [P22-SF3B-24] Relation Between Anomalous Hall and Longitudinal Conductances in Disordered Magnetic Weyl Semimetal Films
*Koji Kobayashi¹, Kentaro Nomura¹ (1. Kyushu University)
- [P22-SF3B-25] Quantum anomalous Hall effect in a three-dimensional topological-insulator-thin-film-ferromagnetic-metal heterostructure
*Katsuhiro Arimoto¹, Takashi Koretsune¹, Kentaro Nomura² (1. Department of Physics, Tohoku University, 2. Department of Physics, Kyushu University)
- [P22-SF3B-26] Observation of the anomalous Hall effect in pyrite dichalcogenides
*Younjung Jo¹ (1. Kyungpook National University)
- [P22-SF3B-27] Phenomenological Theory of Metamagnetism in CeRu₂Si₂
*Kazuyuki Matsumoto¹, Shigeyuki Murayama² (1. Hokkaido University of Education, 2. Muroran Institute of Technology)
- [P22-SF3B-28] Substitution effects of Zn or Cd for Al in SmTi₂Al₂₀
*Ryuji Higashinaka¹, Takuma Iwami¹, Md Asif Afzal¹, Tatsuma D Matsuda¹, Yuji Aoki¹ (1. Tokyo Metropolitan University)
- [P22-SF3B-29] The Fermi surface of the ferromagnetic superconductor UCoGe under external magnetic fields.
*Roos Leenen¹, Georg Knebel², Dai Aoki³, Alex McCollam¹ (1. High Field Magnet Laboratory (HFML-EMFL), Radboud University, 6525 ED Nijmegen, The Netherlands, 2. CEA, Grenoble INP, IRIG, PHELIQS, F-38000 Grenoble, France, 3. Institute for Materials Research, Tohoku University, Ibaraki 311-1313, Japan)
- [P22-SF3B-30] Multipolar multiple-*q* physics in PrV₂Al₂₀
*Kazumasa Hattori¹, Takayuki Ishitobi¹ (1. Tokyo Metropolitan University)
- [P22-SF3B-31] Drastic change in electronic properties in UTe₂ under high pressure
*Fuminori Honda^{1,2}, Shintaro Kobayashi³, Naomi Kawamura³, Saori Kawaguchi³, Takatsugu Koizumi², Yoshiki J. Sato⁴, Dexin Li², Dai Aoki² (1. Kyushu Univ., 2. Tohoku Univ., 3. JASRI/Spring-8, 4. Tokyo Univ. of Science)
- [P22-SF3B-32] On the Phase Transition of URhSn
*Hisatomo Harima¹ (1. Kobe University)
- [P22-SF3B-33] Magnetic Phase Diagrams and Acoustic de Haas-van Alphen Effects in Heavy Fermion System CeTe with Multipole Ordering
*Shintaro Nakamura¹, Noriyuki Kabeya¹, Motoi Kimata¹, Satoshi Awaji¹, Akira Ochiai¹ (1. Tohoku University)
- [P22-SF3B-34] Electron Phase Separation and Magnetic Phase Diagrams in Heavy Fermion Antiferromagnets Ce_xLa_{1-x}B₆
Alexey Bogach¹, Andrey Azarevich¹, Vladimir Glushkov¹, Sergey Demishev¹, Natalya Shitsevalova², Volodymyr Filipov², *Slavomir Gabani³, Jozef Kačmarčík³, Karol Flachbart³, Nikolay Sluchanko¹ (1. Prokhorov General Physics Institute of RAS, Moscow 119991, Russia, 2. Frantsevich Institute for Problems of Materials Science of NASU, Kyiv 03680, Ukraine, 3. Institute of Experimental Physics of SAS, 04001 Košice, Slovakia)
- [P22-SF3B-35] High-Field Ultrasonic Study of CeIrIn₅
*Ryosuke Kurihara^{1,2}, Atsushi Miyake², Ryoma Tsunoda³, Yusuke Hirose³, Rikio Settai³, Masashi Tokunaga² (1. Tokyo University of Science, 2. The Institute for Solid State Physics, The University of Tokyo, 3. Niigata University)
- [P22-SF3B-36] Metamagnetism in a new material EuPdAl₆
Hiroto Suzuki¹, *Shota Nakamura¹, Shigeo Ohara¹ (1. Nagoya Institute of Technology)

[P22-SF3B-37] Low temperature anomalous properties of filled skutterudites $\text{NdT}_4\text{P}_{12}$ ($T = \text{Fe, Ru and Os}$) prepared under high pressure Tatsuya Fukui¹, Yukihiro Kawamura¹, *Chihiro Sekine¹ (1. Muroran Institute of Technology)

[P22-SF3B-38] Y-Substitution Effects on Electrical Resistivity of $(\text{Ce}_{1-y}\text{Y}_y)\text{PtGe}_2$ *Hayato Muto¹, Shoma Onuma¹, Tatsuya Watanabe¹, Ryota Takahashi¹, Tomohito Nakano¹, Naoya Takeda¹, Jun Gouchi², Yoshiya Uwatoko², Klara Uhlirva³, Jan Prokleska³, Vladimir Sechovsky³ (1. Niigata University, 2. Institute for Solid State Physics, University of Tokyo, 3. Faculty of Mathematics and Physics, Charles University)

[P22-SF3B-39] Metal-Insulator Transition and Electron Phase Separation Effects in Charge Transport of the Kondo-Insulator YbB_{12} Andrey Azarevich¹, Alexey Bogach¹, Vladimir Glushkov¹, Sergey Demishev¹, Vladimir Voronov¹, Natalya Shitsevalova², Slavomir Gabani³, *Gabriel Pristas³, Karol Flachbart³, Nikolay Sluchanko¹ (1. Prokhorov General Physics Institute, RAS, Moscow 119991, Russia, 2. Frantsevich Institute for Problems of Materials Science, NASU, Kyiv 03680, Ukraine, 3. Institute of Experimental Physics, Slovak Academy of Sciences, 04001 Kosice, Slovakia)

[P22-SF3B-40] Model analysis of pressure effects on the optical conductivity of valence fluctuating systems *Tetsuya Mutou¹, Kotaro Takeda¹ (1. Shimane University)

[P22-SF3B-41] Effect of Magnetic Field to Resistivity for Heavy-Fermion Amorphous Ce Alloys *Honoka Watanabe¹, Hiroto Hitotsukabuto², Yusuke Amakai¹, Shigeyuki Murayama¹, Tomohiko Kuwai³ (1. Muroran Institute of Technology, 2. Kyusyu University, 3. University of Toyama)

[P22-SF3B-42] Various shapes of magnetization, metamagnetic-like behavior and the roll of 2nd element Ru in RERu_2Si_2 ($\text{RE}=\text{Nd, Dy,}$

Gd and Ce)

*Kazuo Yano¹, Yusuke Amakai², Yoshiaki Hara³, Eiji Kita¹, Hideaki Takano², Hisanori Tanimoto¹, Shigeyuki Murayama² (1. Tsukuba University, 2. Muroran Institute of Technology, 3. National Institute of technology)

[P22-SF3B-43] Observation of hybridization gap in heavy fermion system $\text{EuNi}_2(\text{P}_{1-x}\text{Ge}_x)_2$ via point-contact spectroscopy *Masanobu shiga¹, Takuya Takahashi¹, Tsubasa Teramoto¹, Isao Maruyama², Akihiro Mitsuda³, Hirofumi Wada³, Tatsuya Kawae¹ (1. Department of Applied Quantum Physics, Kyushu University, 2. Department of Information and System Engineering, Fukuoka Institute of Technology, 3. Department of Physics, Kyushu University)

[P22-SF3B-44] Anomalous phase transition in the antiferromagnetic phase of CeIrSi_3 *Yijian Wu¹ (1. Tohoku University)

[P22-SF3B-45] NMR Study of Caged Compounds $\text{TmTr}_2\text{Al}_{20}$ ($\text{Tr} = \text{Ti, V}$) *Ko-ichi Magishi¹, Hikaru Sugiura¹, Akihiko Hisada¹, Yu Kawasaki¹, Qiankun Lei², Yuki Matsumoto², Takahiro Namiki², Katsuhiko Nishimura² (1. Tokushima University, 2. University of Toyama)

Poster

[P22-SF4] Poster 3 remote
9:00 PM - 11:00 PM Poster (Main Hall B)

[P22-SF4-01] Theory of shift heat current and its application to electron-phonon coupled systems

*Yugo Onishi¹, Takahiro Morimoto^{1,2}, Naoto Nagaosa^{1,3} (1. University of Tokyo, 2. JST PRESTO, 3. RIKEN CEMS)

[P22-SF4-02] Einstein--de Haas Nanorotor

*Wataru Izumida¹, Rin Okuyama², Kentaro Sato³, Takeo Kato⁴, Mamoru Matsu⁵ (1. Tohoku University, 2. Meiji University, 3. Sendai College, 4. University of Tokyo, 5. University of Chinese Academy of Sciences)

[P22-SF4-03] Fermi-liquid corrections for nonlinear magneto-conductance through a quantum

dot in asymmetric tunnel junctions

*Kazuhiko Tsutsumi¹, Takuro Kemi¹, Yoshimichi Teratani^{1,2}, Rui Sakano³, Akira Oguri^{1,2} (1. Osaka City University, 2. NITEP, Osaka City University, 3. Keio University)

- [P22-SF4-04] Chip-based magnetic levitation of superconducting um-sized lead spheres for macroscopic quantum experiments
*Marti Gutierrez Gutierrez¹, Achintya Paradkar¹, Gerard Higgins^{1,2}, Witlef Wieczorek¹ (1. Department of Microtechnology and Nanoscience (MC2), Chalmers University of Technology, Kemivägen 9, SE-412 96 Gothenburg, Sweden, 2. Vienna Center for Quantum Science and Technology (VCQ), Faculty of Physics, University of Vienna, Boltzmanngasse 5, Vienna, A-1090, Austria)
- [P22-SF4-05] Anisotropic 3D Quantum Hall Effect and Magnetotransport in Weyl Semimetals
*Xiao-Xiao Zhang¹, Naoto Nagaosa^{1,2} (1. RIKEN, 2. University of Tokyo)
- [P22-SF4-06] Nanomechanics provoked by Andreev injection
*Olha Bahrova^{1,2}, Sergei I. Kulinich², Leonid Y. Gorelik³, Robert I. Shekhter⁴, Hee Chul Park¹ (1. Center for Theoretical Physics of Complex Systems, Institute for Basic Science, 2. B.Verkin Institute for Low Temperature Physics and Engineering of NAS of Ukraine, 3. Department of Physics, Chalmers University of Technology, 4. Department of Physics, University of Gothenburg)
- [P22-SF4-07] Boosting Optomechanical Coupling with a Bragg Mirror
Shalika Singh^{2,1}, *Ruvi Lecamwasam¹, Jason Twamley¹ (1. Quantum Machines Unit, Okinawa Institute of Science and Technology Graduate University, Okinawa 904-0495, Japan, 2. Department of Astronomical Science, SOKENDAI, 2-21-1 Osawa, Mitaka, Tokyo, 181-8588, Japan)
- [P22-SF4-08] Giant Nonreciprocal Charge Transport in Superconducting Few-layer T_d -MoTe₂
*Taro Wakamura¹, Masayuki Hashisaka¹, Shota Okazaki², Takao Sasagawa², Kenji Watanabe³,

Takashi Taniguchi³, Koji Muraki¹, Norio Kumada¹ (1. NTT Basic Research Laboratories, NTT Corporation, Japan, 2. Laboratory for Materials and Structures, Tokyo Institute of Technology, Japan, 3. National Institute for Materials and Science, Japan)

- [P22-SF4-09] The chirality-dependent spin polarization phenomenon in systems with time-reversal symmetry
*Ryosuke Hirakida¹, Junji Fujimoto¹, Masao Ogata^{1,2} (1. Department of Physics, The University of Tokyo, 2. Trans-scale Quantum Science Institute, The University of Tokyo)
- [P22-SF4-10] Probing defect dynamics in metallic nanowires
*Sheng-Shiuan Yeh¹, Cheng-Ya Yu¹, Yi-Te Lee¹, Shao-Pin Chiu¹, Juhn-Jong Lin¹ (1. National Yang Ming Chiao Tung University)
- [P22-SF4-12] Nonadiabatic effect of transport properties in 1D zigzag chain with electronic order
*Ibuki Terada¹, Hiroshi Watanabe¹, Hiroaki Ikeda¹ (1. Ritsumeikan)
- [P22-SF4-13] Temperature Dependent Instabilities of Duffing Resonator Based on Sn-whisker at Low Temperatures
*Kamil Golias¹, Marcel Clovecko¹, Peter Skyba¹, Oleksandr Podopryhora¹ (1. Institute of Experimental Physics SAS, Slovakia)
- [P22-SF4-14] Fast magno-mechanical cooling with reinforcement learning
*Bijita Sarma¹, Sangkha Borah¹, A Kani¹, Jason Twamley¹ (1. Okinawa Institute of Science and Technology Graduate University)
- [P22-SF4-15] **Interactions in a proximity-coupled MoS₂/Graphene van-der-Waals heterostructure**
*Chithra Harihara Sharma¹, Pai Zhao¹, Lars Tiemann¹, Marta Prada², Robert H. Blick^{1,3} (1. Center for Hybrid Nanostructures (CHyN), Univ. Hamburg, 22761, Hamburg, Germany, 2. Institute of Theoretical Physics, HARBOR, Univ. Hamburg, 22761, Hamburg, Germany, 3. Material Science and Engineering, Univ. Wisconsin Madison, WI 53706, USA)
- [P22-SF4-16] Stochastic thermodynamics of a single

nano-mechanical mode

*Ilya Golokolenov¹, Xin Zhou², Arpit Ranadive¹, Luca Planat¹, Martina Esposito¹, Nicolas Roch¹, Andrew Fefferman¹, Eddy Collin¹ (1. Institut Neel UGA - CNRS, 25 rue des Martyrs, 38042 Grenoble, France, 2. IEMN, U. Lille - CNRS, av. Henri Poincare, 59650 Villeneuve d'Ascq, France)

- [P22-SF4-17] Landauer conductance of randomly connected nanostructures
*Mauricio Javier Rodriguez¹, Ricardo Yael Diaz¹, Carlos Ramirez¹ (1. Departamento de Física, Facultad de Ciencias, Universidad Nacional Autónoma de México)
- [P22-SF4-18] Spin Polarization, Spin Diffusion, and Spin-Charge Conversion in Chiral Metals
*Yuta Suzuki¹, Yusuke Kato¹ (1. Univ. of Tokyo)
- [P22-SF4-19] Comparison of Transport Properties in Hybrid Trivial Insulators with Those in Topological Insulators
*Hideo Yoshioka¹, Tomoko Tatsumi¹, Masahiko Hayashi² (1. Nara Women's University, 2. Akita University)
- [P22-SF4-20] Phonon Detection with a Supercurrent through a Single Cooper-Pair Transistor
*Hiroshi Shimada¹, Jutarat Tanarom¹, Takuma Watanabe¹, Tatsuya Iizuka¹, Yoshinao Mizugaki¹ (1. The University of Electro-Communications)
- [P22-SF4-21] Effect of Joule heating in the quantum Hall systems probed by the third harmonics of the ac resistance
*Akira Endo¹, Shingo Katsumoto¹, Yasuhiro Iye¹ (1. University of Tokyo)
- [P22-SF4-22] Scanning Tunneling Microscopy Studies of Electron Transfer in DNA - A Parkinson's Disease Model
*Muhammad Hanif Che Lah^{1,2,6}, Harison Rozak^{1,3}, Mohammed Faruque Reza^{2,6}, Shaharum Shamsuddin^{4,5,6}, Jafri Malin Abdullah^{2,6}, Koichi Ichimura⁷, Isao Watanabe^{1,2} (1. Meson Science Laboratory, RIKEN Wako, Saitama 351-0198, Japan, 2. Department of Neurosciences, School of Medical Sciences, Universiti Sains Malaysia (USM), 16500 Kelantan, Malaysia, 3.

Computational Chemistry and Physics

Laboratory, School of Distance Education, 11800 USM, Penang, Malaysia, 4. School of Health Sciences, USM, 16150 Kelantan, Malaysia, 5. USM-RIKEN Interdisciplinary Collaboration for Advanced Sciences (URICAS), 11800 USM, Penang, Malaysia, 6. Brain and Behaviour Cluster, School of Medical Sciences, USM, 16150 Kelantan, Malaysia, 7. Department of Applied Physics, Hokkaido University, Sapporo, Hokkaido 060-8628, Japan)

- [P22-SF4-26] Quantum time tunneling by CDW instantons in nanoscale NbS₃
*Yuta Fukuda¹, Kazu Urushihara¹, Akiya Sean Ebana¹, Hiroyoshi Nobukane², Katsuhiko Inagaki³, Satoshi Tanda¹ (1. Department of Applied Physics, Hokkaido University, 2. Department of Physics, Hokkaido University, 3. Department of Physics, Asahikawa Medical University)
- [P22-SF4-27] Internal energy level occupation of single electrons transported by surface acoustic waves
*Ryo Ito¹, Shintaro Takada², Arne Ludwig³, Andreas Wieck³, Seigo Tarucha¹, Michihisa Yamamoto¹ (1. RIKEN, 2. National Metrology Institute of Japan, 3. Ruhr-Universität Bochum)
- [P22-SF4-28] Floquet engineering of electric polarization with bicircular lights
*Yuya Ikeda¹, Sota Kitamura¹, Takahiro Morimoto^{1,2} (1. The University of Tokyo, 2. JST PREST)
- [P22-SF4-29] Towards a flying solid-state qubit
*David Pomaranski¹ (1. RIKEN Center for Emergent Matter Science (CEMS))
- [P22-SF4-30] Landau-Zener Dynamics of Atomic Tunneling Systems in Dielectric Bulk Glasses
Benedikt Frey¹, Diana Körner¹, Andreas Reiser¹, Andreas Fleischmann¹, *Christian Enss¹ (1. Heidelberg University)
- [P22-SF4-31] Wave-packet and entanglement dynamics in a non-Hermitian many-body system
*Takahiro Orito¹, Ken-Ichiro Imura² (1. Hiroshima, 2. Tokyo)

Poster

[P22-SF5] Poster 3 remote

9:00 PM - 11:00 PM Poster (Main Hall B)

[P22-SF5-01] Self-heating correction for the thermal expansion measurement at low temperatures using strain gauges
Ryuto Satoyoshi¹, *Noriyuki Kabeya¹ (1. Tohoku University)

[P22-SF5-02] Development of long-distance polarizing microscope system under magnetic fields for microscopy and simultaneous measurement of physical parameters
*Yuto Kinoshita¹, Tomoya Miyakawa², Xiao Xu², Masashi Tokunaga¹ (1. The institute for solid state physics (ISSP), the university of tokyo, 2. Department of Materials Science, Graduate School of Engineering, Tohoku University)

[P22-SF5-04] Application of gyrotron oscillator as high-power millimeter wave light source for FT-ESR measurement
*Tomonori Sano¹, Hidemichi Nishio¹, Kanata Hayashi¹, Yuya Ishikawa¹, Yutaka Fujii¹, Seitaro Mitsudo¹ (1. Fukui Univ)

[P22-SF5-05] Development of Multi-scale Soft X-ray Diffraction Microscope for Observing Spin Textures
Yuta Ishii^{1,2}, Yusuke Kozuka³, Yuichi Yamasaki³, *Hironori Nakao¹ (1. Photon Factory, Institute of Materials Structure Science, High Energy Accelerator Research Organization, 2. Department of Physics, Tohoku University, 3. National Institute for Materials Science)

[P22-SF5-06] Development of a cylindrical cavity for ESR/NMR DoMR measurements in high-field and low-temperature region
*Yuya Ishikawa¹, Kouhei Hirozawa¹, Kanata Hayashi¹, Takayuki Asano², Yutaka Fujii¹, Seitaro Mitsudo^{1,2} (1. Research Center for Development of Far-Infrared Region, University of Fukui, 2. Department of Applied Physics, University of Fukui)

[P22-SF5-07] Improved active-dummy technique with strain gauges for low-temperature thermal expansion measurement

*Keiichiro Imura¹, Noriyuki Kabeya², Yusuke Nishi¹, Misato Takahashi¹, Noriaki K Sato^{1,3}
(1. Nagoya Univ., 2. Tohoku Univ., 3. Aichi Ins. Tech.)

[P22-SF5-08] Enhancing the Film Flow of Superfluid ⁴He by Coating
Keita Onodera¹, Ryuma Nagatomo¹, Shiro Kashimoto¹, *2Ryuji Nomura¹ (1. Hokkaido University)

[P22-SF5-09] Investigation of BDV characteristics at low temperatures
*shigematsu toshinobu¹, Hiroharu Kawasaki², Yuuki Johno², Kenji Nakashima², Bunji Ono³, Tatsuya Kawae⁴ (1. Okayama University of Science, 2. NIT, Sasebo college, 3. Saga University, 4. Kyushu University)

[P22-SF5-10] Study of thermal boundary resistance between metal and ³He at ultralow temperatures
*Petra Knappova¹, Lev Levitin¹, Florence Roberts¹, Harriet van der Vliet^{1,2}, Jan Nyéki¹, Andrew Casey¹, John Saunders¹ (1. Royal Holloway University of London, Egham, Surrey, UK, 2. Oxford Instruments NanoScience, Abingdon, Oxfordshire, UK)

[P22-SF5-11] Low-Stokes-number Oscillatory Flows in the Hydrodynamic Regime of Helium-3 Gas
*Courtney Cain Everett Elmy¹ (1. Lancaster University)

[P22-SF5-12] **A System for Controlling a Levitating Sphere in Helium Superfluids**
Manuel Arrayás¹, Francis Bettsworth², Richard P. Haley², Roch Schanen², Jose L. Trueba¹, Carlos Uriarte¹, Vladislav V. Zavjalov², *Dmitry Zmeev² (1. Área de Electromagnetismo, Universidad Rey Juan Carlos, Tulipán s/n, 28933, Móstoles, Madrid, Spain, 2. Department of Physics, Lancaster University, Lancaster LA1 4YB, UK)

[P22-SF5-13] Optimization of the stopping position of a highly energetic ⁸⁴Rb atoms injected into superfluid helium
*Kai Kikuchi^{1,2}, Kei Imamura², Aiko Takamine², Kenta Tsubura^{1,2}, Sai Akimoto^{1,2}, Manami Ito^{1,2}, Rikuta Mitsuyasu^{1,2}, Aleksey Gladkov², Minori

Tajima², Shintaro Go², Momo Mukai², Miru
Doi^{1,2}, Masaki Nishimura^{1,2}, Takumi
Yamamoto^{1,2}, Hiroki Endo^{1,2}, Masashi Hase³,
Keita Kawata⁴, Hiroki Nishibata^{2,5}, Yuichi
Ichikawa^{2,5}, Hideki Ueno², Yukari Matsuo^{1,2} (1.
Hosei Univ., 2. RIKEN Nishina Center, 3. NIMS,
4. CNS, 5. Kyushu Univ.)

[P22-SF5-14] Laser spectroscopic method for the
investigation of nuclear structure
utilizing superfluid helium as a host
matrix of radioisotope atoms

*Kei IMAMURA¹, Aiko TAKAMINE¹, Kenta
TSUBURA², Sai AKIMOTO², Manami ITO², Kai
KIKUCHI², Rikuta MITSUYASU², Masaki
NISHIMURA², Aleksey GLADKOV¹, Minori
TAJIMA¹, Shintaro GO¹, Momo MUKAI¹, Miru
DOI², Takumi YAMAMOTO², Hiroki ENDO²,
Masashi HASE³, Keita KAWATA⁴, Hiroki
NISHIBATA⁵, Yuichi ICHIKAWA⁵, Hideki UENO¹,
Yukari MATSUO² (1. RIKEN Nishina Center, 2.
Hosei University, 3. National Institute for
Material Science, 4. University of Tokyo, 5.
Kyushu University)

[P22-SF5-15] Magnetic Properties of *Cryogel*[®] Aerogel
Insulation

Alan J. Sherman¹, Quinton L. Wiebe¹, *Mark W.
Meisel^{1,2} (1. University of Florida, 2. National
High Magnetic Field Lab (MagLab))

[P22-SF5-17] Large phonon contribution to thermal
property of cuprite Ag₂O at low
temperatures

*Akiko T. Saito¹, Sotaro NISHIOKA¹ (1.
National Institute for Materials Science)

Tue. Aug 23, 2022

Poster

Poster

[P23-SF1] Poster

2:00 PM - 4:00 PM Poster (Main Hall B)

Poster

[P23-SF2A] Poster

2:00 PM - 4:00 PM Poster (Main Hall B)

Poster

[P23-SF2B] Poster

2:00 PM - 4:00 PM Poster (Main Hall B)

Poster

[P23-SF3A] Poster

2:00 PM - 4:00 PM Poster (Main Hall B)

Poster

[P23-SF3B] Poster

2:00 PM - 4:00 PM Poster (Main Hall B)

Poster

[P23-SF4] Poster

2:00 PM - 4:00 PM Poster (Main Hall B)

Poster

[P23-SF5] Poster

2:00 PM - 4:00 PM Poster (Main Hall B)

Poster

[P23-SF1] Poster 4 remote

9:00 PM - 11:00 PM Poster (Main Hall B)

[P23-SF1-01] Universal conformal description of two-dimensional discommensurate CDW phases
*Keiji Nakatsugawa^{1,3}, Tatsuhiko N. Ikeda⁴, Takeshi Toshima⁵, Satoshi Tanda^{1,2} (1. Center of Education and Research for Topological Science and Technology, Hokkaido University, 2. Department of Applied Physics, Hokkaido University, 3. International Center for Materials Nanoarchitectonics, National Institute for Materials Science, 4. Institute for Solid State Physics, University of Tokyo, 5.

Department of General Education, National Institute of Technology, Toyama College)

[P23-SF1-02] Mobility of solid helium films on a curved substrate

*Tomoki Minoguchi¹ (1. Institute of Physics, the University of Tokyo)

[P23-SF1-03] Ultrasonic study of structural phase transition in 1T-TiSe₂

*Haruyasu Sato¹, Kaito Yamaishi¹, Mitsuhiro Akatsu², Yuichi Nemoto¹, Yuusuke Yamamoto³, Yoshiaki Kobayashi³, Masayuki Itoh³ (1. Graduate School of Science and Technology, Niigata University, Niigata 950-2181, Japan, 2. Faculty of Science, Niigata University, Niigata 950-2181, Japan, 3. Department of Physics, Graduate School of Science, Nagoya University, Nagoya 464-8602, Japan)

[P23-SF1-04] Structural optimization at finite temperature based on anharmonic phonon theory

*Ryota Masuki¹, Takuya Nomoto¹, Ryotaro Arita^{1,2}, Terumasa Tadano³ (1. The University of Tokyo, 2. Center for Emergent Matter Science (CEMS), RIKEN, 3. CMSM, National Institute of Material Science (NIMS))

[P23-SF1-05] Dissipation-induced geometric terms in nonlinear conductivity

*Yoshihiro Michishita¹, Naoto Nagaosa^{1,2} (1. Riken, 2. University of Tokyo)

[P23-SF1-06] Generation of macroscopic quantum motional superpositions using

superconducting quantum circuits
Sarath Raman Nair², *Shilu Tian¹, Gavin Brennen², Marko Toros³, Sougato Bose⁴, Jason Twamley¹ (1. Okinawa Institute of Science and Technology Graduate University, 2. Macquarie University, 3. University of Glasgow, 4. University College London)

[P23-SF1-07] Spontaneous emergence of phase coherence of oscillating electric dipoles in quartz piezo-resonators at low temperatures

*Marcel Clovecko¹, Peter Skyba¹, Frantisek Vavrek¹ (1. Institute of Experimental Physics, SAS, Slovakia)

[P23-SF1-08] Pinning of Dislocations in Solid ⁴He

- Studied by Ultrasound Attenuation
*Izumi Iwasa¹, Harry Kojima² (1. Kanagawa University, 2. Rutgers University)
- [P23-SF1-09] Relativistic Topological Molecular Crystals
*Tonghua Yu^{1,2}, Ryotaro Arita^{1,2}, Motoaki Hirayama^{1,2,3} (1. University of Tokyo, 2. RIKEN CEMS, 3. JST, PRESTO)
- [P23-SF1-13] The differential conductance tunnel spectroscopy in an analytical solvable two-terminal Majorana device
*Chuan-Zhe Yao¹ (1. National Cheng Kung University)
- [P23-SF1-14] Giant anisotropic magnetoresistance and quantum oscillations in the nodal line semimetal ZrAs₂
*Jun Jian Mi¹ (1. Zhejiang University)
- [P23-SF1-16] Inverse energy cascade caused by abnormal motion of vortex dipoles in a holographic superfluid turbulence
*Weican Yang¹ (1. Osaka City University)
- [P23-SF1-17] Finite-temperature study of a strongly interacting system in a 1D lattice with incommensurable filling
*Kresimir Dzelalija¹, Leandra Vranjes Markic² (1. University of Split, 2. Faculty of Science, University of Split)
- [P23-SF1-18] Hole Spin Current induced by Rashba Spin-Orbit Interaction in Diamond Two-Dimensional Quantum Well System
*Tatsuki Tojo¹, Kyozauro Takeda¹ (1. Waseda Univ.)
- [P23-SF1-19] Continuous wave (CW) NMR studies of a 1D ³He system
*Chao Huan^{1,2}, Johnny Adams^{1,2}, Marc Lewkowicz^{1,2}, Naoto Masuhara^{1,2}, Donald Candela³, Neil Sullivan^{1,2} (1. University of Florida, 2. National High Magnetic Field Laboratory, 3. University of Massachusetts, Amherst)
- [P23-SF1-20] Multifractality at the Anderson Transition of 1D Non-Unitary Quantum Walks
*Hideaki Obuse^{1,2}, Kousuke Yakubo¹, Naomichi Hatano² (1. Hokkaido University, 2. The University of Tokyo)
- [P23-SF1-21] Berry Curvatures and Phases for the Multi-Subband System
*Katsumi Sato¹, Tatsuki Tojo¹, Kyozauro Takeda¹ (1. Waseda Univ.)
- [P23-SF1-22] Rashba-field-driven Larmor precession of Holes confined in Diamond Quantum Well System
*Shuhei Nakazawa¹, Tatsuki Tojo¹, Kyozauro Takeda¹ (1. Waseda Univ.)
- [P23-SF1-23] Origin of Double Peaks in Heat Capacity of ⁴He Films on Graphite around $\rho_{4/7}$
*Masashi Morishita¹ (1. University of Tsukuba)
- [P23-SF1-24] Suppressing the Kibble-Zurek mechanism by a symmetry-violating bias
Jere Mäkinen¹, Juho Rysti¹, Samuli Autti^{1,2}, Grigory Volovik¹, *Vladimir Eltsov¹ (1. Department of Applied Physics, Aalto University, Finland, 2. Department of Physics, Lancaster University, UK)
- [P23-SF1-25] On the pair density wave stabilised under confinement of superfluid ³He between parallel plates
*2John Saunders¹, Lev Levitin¹, Xavier Rojas¹, Petri Heikkinen¹, Andrew Casey¹, Jeevak Parpia² (1. Royal Holloway University of London, 2. Cornell University)
- [P23-SF1-26] LIF spectrum analysis for Measurement of Rb Atomic Bubble Relaxation Time in Superfluid Helium
*Hiroki Endo^{1,2}, Kunihiko Ishii³, Yuika Takeuchi^{1,2}, Kei Imamura², Aiko Takamine², Miru Doi^{1,2}, Takumi Yamamoto^{1,2}, Matsuo Yukari^{1,2}, Tahei Tahara³, Hideki Ueno² (1. Hosei University, 2. RIKEN Nishina Center, 3. RIKEN Cluster for Pioneering Research)
- [P23-SF1-27] Harmonically Modulated Cryogenic Turbulent Convection
*Ladislav Skrbek¹, Pavel Urban², Tomas Kralik², Vera Musilova², Pavel Hanzelka², Michal Macek², David Schmoranzler¹ (1. Charles University, Faculty of Mathematics and Physics, 2. Czech Academy of Sciences, Institute of Scientific Instruments)
- [P23-SF1-28] Cooling of massive objects to their motional ground state and engineering

ultra-fast rotations

*Kani Mohamed¹, Bijita Sarma¹, Fernando Quijandria¹, Jason Twamley¹ (1. Quantum Machines Unit, Okinawa Institute of Science and Technology Graduate University)

[P23-SF1-29] The Dielectric Anomaly of Hydrogen Films
Mani Michikawa¹, Fumiya Koike¹, Tomoyuki Tani¹, *Yusuke Nago¹, Keiya Shirahama¹ (1. Keio University)

Poster

[P23-SF2A] Poster 4 remote
9:00 PM - 11:00 PM Poster (Main Hall B)

[P23-SF2A-02] Superconductivity and formation of heavy-quasiparticles in atomically thin CeCoIn₅ films
*Tomoya Asaba¹, Lang Peng¹, Masahiro Naritsuka², Satoru Akutagawa¹, Shota Suetsugu¹, Masahiro Haze³, Yuichi Kasahara¹, Terashima Takahito¹, Robert Peters¹, Yuji Matsuda¹ (1. Kyoto Univ., 2. RIKEN CEMS, 3. Univ. of Tokyo)

[P23-SF2A-04] Topological Kondo superconductor
*Yung-Yeh Chang^{1,2}, Khoe Van Nguyen², Kuang-Lung Chen², Chung-Hou Chung^{1,2} (1. Physics Division, National Center for Theoretical Sciences, Taipei 10617, Taiwan, Republic of China, 2. Department of Electrophysics, National Yang Ming Chiao Tung University, Hsinchu 30010, Taiwan, Republic of China)

[P23-SF2A-05] Identification of Superconducting Symmetry in Low and High Field Phases of Spin-Triplet Superconductor UTe₂ by Knight-shift Measurements
*Hiroki Fujibayashi¹, Katsuki Kinjo¹, Genki Nakamine¹, Shunsaku Kitagawa¹, Kenji Ishida¹, Yo Tokunaga², Hironori Sakai², Shinsaku Kambe², Ai Nakamura³, Yusei Shimizu³, Yoshiya Homma³, Dexin Li³, Fuminori Honda³, Dai Aoki^{3,4}, Koichi Hiraki⁵, Motoi Kimata³, Takahiko Sasaki³ (1. Kyoto University, 2. Japan Atomic Energy Agency, 3. Tohoku University, 4. Universite Grenoble, 5. Fukushima Medical University)

[P23-SF2A-06] Electronic Structure of UTe₂ Studied by

Photoelectron Spectroscopy

*Shin-ichi Fujimori¹, Ikuto Kawasaki¹, Yukiharu Takeda¹, Hiroshi Yamagami^{1,2}, Ai Nakamura³, Yoshiya Homma³, Dai Aoki³ (1. Japan Atomic Energy Agency, 2. Kyoto Sangyo University, 3. Tohoku University)

[P23-SF2A-07] NQR Study of Ce Valence State in CeTIn₅ (T = Co, Rh) under pressure
*Kenji Fujiwara¹, Kohichi Akamatsu¹, Kaede Isomura¹, Masahiro Manago¹, Gaku Motoyama¹, Kiyotaka Miyoshi¹, Shijo Nishigori¹ (1. Shimane University)

[P23-SF2A-08] **Thermodynamic and electrical transport properties of UTe₂ under uniaxial stress**
*Clement Girod¹, Callum R. Stevens², Andrew Huxley², Priscila F. S. Rosa¹, Eric D. Bauer¹, Frederico S. Santos⁴, Joe D. Thompson¹, Jian-Xin Zhu¹, Rafael M. Fernandes³, Filip Ronning¹, Sean M. Thomas¹ (1. Los Alamos National Laboratory, 2. School of Physics and Astronomy and Centre for Science at Extreme Conditions, The University of Edinburgh, 3. School of Physics and Astronomy, University of Minnesota, 4. Escola de Engenharia de Lorena, Universidade de Sao Paulo)

[P23-SF2A-09] Field-dependent paramagnetic behavior in the normal state of unconventional superconductor UTe₂
*Yoshinori Haga¹, Petr Opletal¹, Hironori Sakai¹, Motoi Kimata², Satoshi Awaji², Takahiko Sasaki², Dai Aoki², Etsuji Yamamoto¹, Shinsaku Kambe¹, Yo Tokunaga¹, Yoshifumi Tokiwa¹ (1. Japan Atomic Energy Agency, 2. Tohoku University)

[P23-SF2A-11] Charging and Hall Effect in Superconductors
*Takafumi Kita¹ (1. Hokkaido University)

[P23-SF2A-13] Interplay of superconductivity and magnetism in YbRh₂Si₂
*Lev V Levitin¹, Jan Knapp¹, Harriet van der Vliet^{1,5}, Petra Knappova¹, Marijn Lucas¹, Petri Heikkinen¹, Jan Nyeki¹, Andrew J Casey¹, Kent R Shiner^{2,6}, Sandra Hamann², Alexander Steppke², König Markus², Manuel Brando², Kristin Kliemt³, Cornelius Krellner³,

Thomas Schurig⁴, Dietmar Drung⁴, Joern Beyer³, John Saunders¹ (1. Royal Holloway, University of London, Egham, Surrey, UK, 2. Max Planck Institute for Chemical Physics of Solids, Dresden, Germany, 3. Physics Institute, Goethe University, Frankfurt, Germany, 4. Physikalisch-Technische Bundesanstalt, Berlin, Germany, 5. Oxford Instruments Nanoscience, Abingdon, Oxfordshire, UK, 6. École polytechnique fédérale de Lausanne, Switzerland)

- [P23-SF2A-15] Grain boundaries investigation in polycrystalline CeCoIn₅
*Sanu Mishra¹, Sean Michael Thomas¹, Rodney James McCabe¹, Shizeng Lin¹, Eric Dietzgen Bauer¹, Filip Ronning¹ (1. Los Alamos National Laboratory, Los Alamos, New Mexico, 87545, USA)
- [P23-SF2A-16] Possible Non-unitary Superconducting State Induced by Spin-Orbit-Phonon Coupling
*Kazumasa Miyake¹ (1. Osaka University)
- [P23-SF2A-17] Anomalous Thermal Hall Effect in the Superconducting State of UTe₂
*Yukiyasu Moriya¹, Taiki Matsushita¹, Masahiko G Yamada¹, Takeshi Mizushima¹, Satoshi Fujimoto¹ (1. Osaka University)
- [P23-SF2A-18] Strong correlation effect and parity transition in CeRh₂As₂
*Kosuke Nogaki¹, Youich Yanase¹ (1. Kyoto Univ.)
- [P23-SF2A-19] **Role of Nano-sized Cr Particles in CuTi-1223 superconductor**
*Muhammad Waqee Ur Rehman Qadri^{1,4}, Usman Danish^{2,4}, Muhammad Mumtaz³, Ijaz Ahmad Khan² (1. Quantum Materials Laboratory, Department of physics, Graduate School of Science, Kyoto University, Kyoto 606-8502, Japan, 2. Department of Physics, Government College University Faisalabad, 38000 Faisalabad, Pakistan, 3. Materials Research Laboratory, Department of Physics, Faculty of Basic and Applied Sciences (FBAS), International Islamic University (IIU) Islamabad 44000, Pakistan, 4. Department of Physics,

Government Graduate College Gojra 36120, Pakistan)

- [P23-SF2A-21] Quantum-well states at the surface of the heavy fermion URu₂Si₂
*Hermann Suderow¹ (1. Universidad Autonoma de Madrid)
- [P23-SF2A-22] Supercurrent-induced Weyl superconductivity
*Shuntaro Sumita¹, Kazuaki Takasan^{2,3} (1. RIKEN, 2. University of California, Berkeley, 3. Lawrence Berkeley National Laboratory)
- [P23-SF2A-23] Pressure Dependence of Magnetic Penetration Depth of UPt₃ Derived by DC Magnetization Measurements
*Akihiko Sumiyama¹, Masashi Hoshikawa¹, Yu Yamane¹, Akira Yamaguchi¹, Gaku Motoyama², Noriaki Kimura³, Etsuji Yamamoto⁴, Yoshinori Haga⁴, Yoshichika Onuki⁵ (1. University of Hyogo, 2. Shimane University, 3. Tohoku University, 4. Japan Atomic Energy Agency, 5. RIKEN)
- [P23-SF2A-24] Slow Dynamics of Electrons in the Paramagnetic State of UTe₂
*Yo Tokunaga¹, Hironori Sakai¹, Shinsaku Kambe¹, Yoshinori Haga¹, Yoshifumi Tokiwa¹, Petr Opleta¹, Hiroki Fujibayashi², Katsuki Kinjo², Shunsaku Kitagawa², Kenji Ishida², Ai Nakamura³, Yusei Shimizu³, Yoshiya Homma³, Dexin Li³, Fuminori Honda^{3,4}, Dai Aoki^{3,5} (1. Japan Atomic Energy Agency, 2. Kyoto Univ., 3. Tohoku Univ., 4. Kyushu Univ., 5. University Grenoble Alpes, CEA)
- [P23-SF2A-25] Spin textures and *d*-vector rotation in a triplet superconductor UTe₂
*Yasumasa Tsutsumi¹, Kazushige Machida² (1. Kwansei Gakuin University, 2. Ritsumeikan University)
- [P23-SF2A-26] Lattice Instability of UTe₂ studied by Ultrasonic Measurements
*Keita Ushida¹, Tatsuya Yanagisawa¹, Ruo Hibino¹, Masato Matsuda¹, Hiroyuki Hidaka¹, Hiroshi Amitsuka¹, Georg Knebel², Jacques Flouquet², Dai Aoki³ (1. Hokkaido Univ., 2. Univ. Grenoble Alpes, 3. Tohoku Univ.)
- [P23-SF2A-70] Absolute spin-switch effect in a near nm-thick s-wave superconductor

between chalcogenide ferromagnetic
insulators

*Hisakazu Matsuki¹, Jason Robinson¹, Guang
Yang^{1,2} (1. University of Cambridge, 2.
Beihang University)

Poster

[P23-SF2B] Poster 4 remote

9:00 PM - 11:00 PM Poster (Main Hall B)

- [P23-SF2B-28] Large Kerr non-linearity in kinetic
inductance dominant resonators based
on 3
nm-thick epitaxial superconductors
*Weichen Chien¹, Yu-Han Chang¹, Cheng-Xin
Lu², Cen-Shawn Wu², Sheng-Di Lin³, Watson
Kuo¹ (1. National Chung Hsing University, 2.
National ChangHua University of of
Education, 3. Institute of Electronics,
National Yang Ming Chiao Tung University)
- [P23-SF2B-29] Pressure Effect and Anisotropy of
Superconducting and Structural
Transitions in LaPd₂X₂ (X=Al and Ga)
*Yusuke Hirose¹, Yu Ikeda¹, Yuya Aketa¹,
Fuminori Honda², Rikio Settai¹ (1. Niigata
University, 2. Kyushu University)
- [P23-SF2B-30] Extremely High Upper Critical Field for
the BiCh₂-Based Superconductor
*Kazuhisa Hoshi¹, Ryosuke Kurihara^{2,3}, Yosuke
Goto^{1,4}, Masashi Tokunaga², Yoshikazu
Mizuguchi¹ (1. Tokyo Metropolitan
University, 2. University of Tokyo, 3. Tokyo
University of Science, 4. National Institute
of Advanced Industrial Science and
Technology)
- [P23-SF2B-31] Nitrogen Dependence of
Superconducting Properties in MoReN
thin films
*Fusao Ichikawa¹, Hiroki Takeda¹, Kohei
Matsuo¹, Kazumasa Makise², Bunju Shinozaki³
(1. Kumamoto University, 2. National
Astronomical Observatory of Japan, 3.
Kyushu University)
- [P23-SF2B-32] Quantum Fluctuations and Criticality in
the Field-Induced Metallic State of a
Two-Dimensional Superconductor

*Koichiro Ienaga¹, Taiko Hayashi¹, Yutaka
Tamoto¹, Satoshi Okuma¹ (1. Tokyo
Institute of Technology)

- [P23-SF2B-33] Low-Energy Phonons Enhanced near the
Structural Quantum Critical Point of
the Strong-Coupling Superconductor
(Sr_{1-x}Ca_x)₃Rh₄Sn₁₃
Yasuhiro Terasaki¹, Ratsuki Yamaguchi¹, *Yui
Ishii¹, Yurina Tada¹, Arisa Yamamoto¹, Shigeo
Mori¹ (1. Osaka Metro. Univ.)
- [P23-SF2B-35] Fermiology of Kagome Superconductors
AV₃Sb₅ Studied by ARPES
*Takemi Kato¹, Yongkai Li², Kosuke
Nakayama¹, Zhiwei Wang², Seigo Souma¹,
Takashi Takahashi¹, Yugui Yao², Takafumi
Sato¹ (1. Tohoku University, 2. Beijing
Institute of Technology)
- [P23-SF2B-36] Numerical simulation of vortex pinning
using the Eilenberger equations
*Motoki Kawabata¹, Masaru Kato¹ (1. Osaka
Metropolitan University)
- [P23-SF2B-37] Superconductivity in the Laves Phase
BaR₂ Crystallized Under High Pressure
*Terunari Koshinuma^{1,2}, Hiroki Ninomiya^{2,3},
Izumi Hase², Hiroshi Fujihisa², Yoshito
Gotoh², Shigeyuki Ishida², Kenji Kawashima^{2,3},
Yoshiyuki Yoshida², Hiroshi Eisaki², Taichiro
Nishio^{1,2}, Akira Iyo² (1. Tokyo Univ. of Sci.,
2. AIST, 3. IMRA Japan Co., Ltd.)
- [P23-SF2B-38] Particle-irradiation-induced T_c
suppression in NbSe₂ via lattice
expansion
*Wenjie Li¹, Sunseong Pyon¹, Ataru Ichinose²,
Satoru Okayasu³, Tsuyoshi Tamegai¹ (1. The
University of Tokyo, 2. Central Research
Institute of Electric Power Industry, 3. Japan
Atomic Energy Agency)
- [P23-SF2B-40] NMR/NQR study of tin-pnictogen
layered superconductor NaSn₂As₂ and
Na_{1-x}Sn₂P₂
*Shota Nakanishi¹, Yusuke Nakai¹, Kohichi
Ueda¹, Takeshi Mito¹, Yosuke Goto²,
Yoshikazu Mizuguchi² (1. University of
Hyogo, 2. Tokyo Metropolitan University)
- [P23-SF2B-41] **Effect of adding Fe and Gd on the
superconducting and normal state**

properties of the $V_{60}Ti_{40}$ alloy

*Ramjan SK^{1,2}, Sharath Chandra L.S.^{1,2},
Rashmi Singh³, M. K. Chattopadhyay^{1,2} (1.
Free Electron Laser Utilization Laboratory,
Raja Ramanna Centre for Advanced
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Bhabha National Institute, Training School
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Nano-Functional Materials Laboratory, Laser
and Functional Materials Division, Raja
Ramanna Centre for Advanced Technology,
Indore 452 013, India)

- [P23-SF2B-43] ^{121/123}Sb-NQR study on the
superconducting Dirac line-nodal
material $CaSb_2$ under hydrostatic
pressure.
*Hidemitsu Takahashi¹, Shunsaku Kitagawa¹,
Kenji Ishida¹, Atsutoshi Ikeda², Mayo
Kawaguchi¹, Shanta R. Saha², Shingo
Yonezawa¹, Johnpierre Paglione², Yoshiteru
Maeno^{1,3} (1. Department of Physics, Kyoto
University, 2. Maryland Quantum Materials
Center and Department of Physics,
University of Maryland, 3. Toyota Riken-
Kyoto University Research Center (TRiKUC))
- [P23-SF2B-44] Theory for doping trends in titanium
oxypnictide superconductors
*Han-xiang Xu¹, Daniel Guterding², Harald O.
Jeschke¹ (1. Research Institute for
Interdisciplinary Science, Okayama
University, 2. Fachbereich Mathematik,
Naturwissenschaften und Datenverarbeitung,
Technische Hochschule Mittelhessen)
- [P23-SF2B-45] An experimental contrast between
Lifshitz and Mott types in band
controlled metal to insulator transitions
captured by AC calorimetry under
pressure.
*Touru Yamauchi¹, Hiroaki Ueda² (1. ISSP,
University of Tokyo, 2. Division of
Chemistry, Kyoto University)
- [P23-SF2B-46] **Characterization of intercalated $LnTe_3$**
(Ln : Lanthanoid)
*Kei Yoneyama¹ (1. Nihon Univ.)
- [P23-SF2B-47] Direct evidence of the nodeless
superconducting gap in a Kagome

superconductor $Cs(V_{0.86}Ta_{0.14})_3Sb_5$

revealed by laser-based ARPES

*Yigui Zhong¹, Akifumi Mine¹, Sahand
Najafzadeh¹, Zhiwei Wang², Xun Shi², Yugui
Yao², Kozo Okazaki¹ (1. Institute for Solid
States Physics, University of Tokyo, 2.
School of Physics, Beijing Institute of
Technology)

- [P23-SF2B-48] Possible condensation of Cooper triples
*Sora Akagami¹, Hiroyuki Tajima², Kei Iida¹
(1. Kochi University, 2. The University of
Tokyo)
- [P23-SF2B-49] Odd-frequency Cooper pairing
correlations around magnetic impurities
Shu-Ichiro Suzuki^{2,3}, Takumi Sato¹, *Yasuhiro
Asano¹ (1. Hokkaido University, 2. Nagoya
University, 3. University of Twente)
- [P23-SF2B-50] Superconducting piezoelectric effect in
helical superconductor
*Michiya Chazono¹, Hikaru Watanabe²,
Youichi Yanase^{1,3} (1. Kyoto University, 2.
RIKEN Center for Emergent Matter Science,
3. Institute for Molecular Science)
- [P23-SF2B-51] Hyperuniformity in vortex matter in
type-II superconductors
*Yanina Fasano¹ (1. Low Temperature Lab
& Instituto Balseiro, Centro Atómico
Bariloche, Argentina)
- [P23-SF2B-52] Theoretical study of CDW sliding in the
presence of surface acoustic waves
*Yu Funami¹, Kazushi Aoyama¹ (1.
Department of Earth and Space Science,
Graduate School of Science, Osaka
University.)
- [P23-SF2B-54] Impurity effect on superconducting
diode effect
*Yuhei Ikeda¹, Akito Daido¹, Youichi Yanase¹
(1. Kyoto University)
- [P23-SF2B-55] Effect of Weak Localization on
Microwave Conductivity in Two-
Dimensional Superconductors at
Absolute Zero
*Takanobu Jujo¹ (1. Nara Institute of
Science and Technology)
- [P23-SF2B-56] Superconducting Properties of Palladium
Hydride Systems Prepared by Low-

Temperature Absorption

*Ryoma Kato¹, Rikuo Koga¹, Kazuki Miyakawa¹, Yuji Inagaki², Tatsuya Kawae¹
(1. Department of Applied Quantum Physics, Kyushu University, 2. Institute for the Advancement of Higher Education, Okayama University of Science)

- [P23-SF2B-57] Decoherence in CDW above CDW transition temperature in $ZrTe_3$
*Sora Kobayashi¹, Tomoko Takeda¹, Shun Ohta¹, Atsushi Nomura¹, Satoshi Demura², Hideaki Sakata¹ (1. Department of Physics, Tokyo University of Science, 2. College of Science and Technology, Nihon University)
- [P23-SF2B-58] Moving smectic phase detected by transverse mode locking in driven vortices
*Shun Maegochi¹, Koichiro Ienaga¹, Satoshi Okuma¹ (1. Tokyo Institute of Technology)
- [P23-SF2B-59] Superconducting properties of $Zr_2(Co_{1-x}T_x)$ ($T = Pd, Pt$)
*Takahiro Namiki¹, Yoshinori Hachiya², Katsuhiko Nishimura¹ (1. Faculty of Sustainable Design, University of TOYAMA, 2. Graduate School of Science and Engineering, University of TOYAMA)
- [P23-SF2B-61] Spin Hall effect in the superconducting vortex state
*Takuya Taira¹, Yusuke Kato², Masanori Ichioka¹, Hiroto Adachi¹ (1. Okayama University, 2. University of Tokyo)
- [P23-SF2B-62] Real-space observation of local CDW in $DyTe_3$ appeared in the vicinity of defect
*Tomoko Takeda¹, Sora Kobayashi¹, Shun Ohta¹, Atsushi Nomura¹, Hideaki Sakata¹ (1. Tokyo University of Science)
- [P23-SF2B-63] Nonlinear optical responses in two-dimensional superconductors
*Hiroto Tanaka¹, Hikaru Watanabe², Youichi Yanase¹ (1. Kyoto university, 2. RIKEN Center for Emergent Matter Science (CEMS))
- [P23-SF2B-64] Structure and superconductivity of alkaline earth metal Strontium at low temperature and high pressure
*Yuki Tanaka¹, Takumi Ito¹, Yuki Nakamoto¹,

Katsuya Shimizu¹, Masafumi Sakata², Hiroshi Fujihisa³, Saori Kawaguchi⁴, Naohisa Hirao⁴, Yasuo Ohishi⁴ (1. Osaka Univ., 2. Gifu Univ., 3. National Institute of Advanced Industrial Science and Technology (AIST), 4. JASRI/SPRING-8)

- [P23-SF2B-65] Electromagnetic Response of Superconducting RF Cavities
*Hikaru Ueki¹, Mehdi Zarea¹, J A Sauls¹ (1. Northwestern Univ.)
- [P23-SF2B-66] Absence of conventional room-temperature superconductivity at high pressure in carbon-doped H_3S
*Tianchun Wang¹, Motoaki Hirayama^{1,2}, Takuya Nomoto¹, Takashi Koretsune³, Ryotaro Arita^{1,2}, Jose A. Flores-Livas^{2,4} (1. University of Tokyo, 2. RIKEN, 3. Tohoku University, 4. Università di Roma La Sapienza)
- [P23-SF2B-67] Nonreciprocal optical response in parity-breaking superconductors
*Hikaru Watanabe¹ (1. RIKEN Center for Emergent Matter Science)
- [P23-SF2B-68] Simulation of Collective Motion of Vortices Using Molecular + Field Dynamics Method
*Jun Yamanaka¹, Masaru Kato² (1. Osaka Prefecture University, 2. Osaka Metropolitan University)
- [P23-SF2B-69] Paramagnetic quantum vortex on surface with Andreev bound states
*Soma Yoshida¹, Shu-Ichiro Suzuki^{1,2}, Yukio Tanaka¹ (1. Department of Applied Physics, Nagoya University, 2. Institute for Nanotechnology, University of Twente)

Poster

[P23-SF3A] Poster 4 remote
9:00 PM - 11:00 PM Poster (Main Hall B)

- [P23-SF3A-01] Low Temperature Heat Capacity Measurements of $KYbSe_2$
*Andrew Woods¹, Sangyun Lee¹, Roman Movshovich¹ (1. Los Alamos National Laboratory)
- [P23-SF3A-02] Real-space analysis of hole-doped spin liquid states in an extended Kitaev

- model
Shuhei Fukuda¹, *Hiroki Tsuchiura¹, Sei-ichiro Suga² (1. Tohoku University, 2. University of Hyogo)
- [P23-SF3A-03] Physical properties of a quantum spin liquid candidate κ -(ET)₂Cu[Au(CN)₂]Cl at low temperatures and high pressures
*Yuki Tanaka¹, Shinya Tomeno¹, Yukihiko Yoshida¹, Yasuhiro Shimizu², Hiroshi Kitagawa¹, Mitsuhiko Maesato¹ (1. Kyoto Univ., 2. Nagoya Univ.)
- [P23-SF3A-04] Frustrated magnetism in alkaline-intercalated Mo3O8-type compounds
*Daigo Ishikita¹, Yuya Haraguchi¹, Hiroko Aruga Katori¹ (1. Tokyo University of Agriculture and Technology)
- [P23-SF3A-05] **Gate- and strain-induced phase transitions in organic strongly correlated systems**
*Yoshitaka Kawasaki^{1,2}, Hirohito Sakurakoji¹, Jiang Pu³, Taishi Takenobu³, Hiroshi M Yamamoto⁴, Reizo Kato², Naoya Tajima¹ (1. Toho University, 2. RIKEN, 3. Nagoya University, 4. Institute for Molecular Science)
- [P23-SF3A-06] Nuclear quadrupole resonance in Kitaev quantum spin liquid candidate Ru_{1-x}O_{5x}Cl₃
*Takamasa Ohashi¹, Yasuhiro Shimizu¹, Kota Kataoka², Daigorou Hirai², Zenji Hiroi² (1. Nagoya Univ., 2. Univ. of Tokyo)
- [P23-SF3A-08] Crystal Growth and Magnetic Properties of the MgTiO₃-Ti₂O₃ System
*Kazuya Takasu¹, Mitsutoshi Arizono¹, Takumi Shirasaki², Hideki Kuwahara², Takuro Katsufuji³, Tetsuji Okuda¹ (1. Kagoshima University, 2. Sophia University, 3. Waseda University)
- [P23-SF3A-09] High-field ESR spectroscopy of a quantum spin liquid system CuHpCl
*Yuji Inagaki¹, Takahiro Sakurai², Makoto Yoshida², Susumu Okubo², Hikomitsu Kikuchi³, Keiichi Koyama⁴, Hitoshi Ohta² (1. Okayama University of Science, 2. Kobe University, 3. Fukui University, 4. Kagoshima University)
- University)
- [P23-SF3A-10] New Kitaev spin liquid candidate ruthenium halides RuX₃ (X = Br, I) with a honeycomb lattice
*Yoshinori Imai¹, Hideyuki Fujihara¹, Fuki Sato¹, Wakana Yamada¹, Takuya Aoyama¹, Kazuhiro Nawa², Takumi Hiraoka², Ryotaro Takahashi², Daisuke Okuyama², Yasuhiro Shimizu³, Takamasa Ohashi³, Youhei Yamaji⁴, Masato Hagihara⁵, Shuki Torii⁵, Hirokata Gotou⁶, Takayuki Kawamata⁷, Masatsune Kato⁷, Masayuki Itoh³, Taku J Sato², Kenya Ohgushi¹ (1. Dept. of Phys., Tohoku Univ., 2. IMRAM, Tohoku Univ., 3. Dept. of Phys., Nagoya Univ., 4. NIMS, 5. KEK, 6. ISSP, Univ. of Tokyo, 7. Dept. of Appl. Phys., Tohoku Univ.)
- [P23-SF3A-11] Magnetic Properties of Nonsymmorphic Antiferromagnet LaMnSi without Local Space Inversion Symmetry
*Hiroshi Tanida¹, Hiroto Matsuoka¹, Keisuke Mitsumoto¹, Yuji Muro¹, Tadashi Fukuhara¹, Hisatomo Harima² (1. Toyama Prefectural University, 2. Kobe University)
- [P23-SF3A-12] Probing Electronic States of the Au-Ga-Ce and Cd-Ce Quasicrystalline Approximants by Hard and Soft X-ray Photoemission Spectroscopy
*Goro Nozue^{1,2}, Akane Ose^{1,2}, Miwa Tsutsumi^{1,2}, Hayato Hashizume^{1,2}, Hidenori Fujiwara^{1,2}, Takayuki Kiss¹, Satoru Hamamoto², Masaki Oura², Kenji Tamasaku², Makina Yabashi², Tetsuya Ishikawa², Atsushi Higashiya³, Atsushi Yamasaki⁴, Shin Imada⁵, Azusa Motouri⁶, Farid Labib⁶, Shintaro Suzuki⁶, Ryuji Tamura⁶, Akira Sekiyama^{1,2} (1. Osaka Univ., 2. RIKEN SPring-8 Center, 3. Setsunan Univ., 4. Konan Univ., 5. Ritsumeikan Univ., 6. Tokyo Univ. of Sci.)
- [P23-SF3A-13] Pressure induced ferromagnetism in the CeZn single crystal
*Xiaoling Shen¹, Dilip Bhoi², Jun Gouchi², Yoshiya Uwatoko², Izuru Umehara¹, Masatomo Uehara¹ (1. Department of Physics, Yokohama National University, 2. Institute for Solid State Physics, University

- of Tokyo)
- [P23-SF3A-14] Kondo effect and valence fluctuation in Eu-based impurity Anderson model
*Shingo Kuniyoshi¹, Ryouyusuke Shiina¹ (1. University of the Ryukyus)
- [P23-SF3A-15] Systematic NMR Study of Intermediate Valence Compound SmS
*Shogo Yoshida¹, Kentaro Kitagawa², Takehide Koyama¹, Haruhiko Yamada¹, Yoshinori Haga³, Yusuke Nakai¹, Koichi Ueda¹, Takeshi Mito¹ (1. University of Hyogo, 2. University of Tokyo, 3. Japan Atomic Energy Agency)
- [P23-SF3A-16] Multiple Magnetic Phases in CeIrSi₃
Yuta Miseki¹, Hiroki Sano¹, Noriyuki Kabeya¹, Hiroki Iida¹, *Noriaki Kimura¹ (1. Tohoku University)
- [P23-SF3A-17] Electronic density of states in CeSi_{2-x} studied by point-contact spectroscopy
*Takuya Takahashi¹, Tsubasa Teramoto¹, Masanobu Shiga¹, Isao Maruyama², Keisuke Ida³, Kousei Ishiwatari³, Masashi Ohashi⁴, Tatsuya Kawae¹ (1. Department of Applied Quantum Physics, Kyushu Univ., 2. Fukuoka Institute of Technology, 3. Graduate School of Natural Science and Technology, Kanazawa University, 4. Institute of Science and Engineering, Kanazawa University)
- [P23-SF3A-18] Pressure Effect on the Antiferromagnetic Ordered State of Ce₃TiSb₅
*Masahiro Shinozaki¹, Gaku Motoyama¹, Shijo Nishigori¹, Jun Gouchi², Akira Yamaguchi³, Yu Yamane³, Kenji Fujiwara¹, Masahiro Manago¹, Kiyotaka Miyoshi¹, Yoshiya Uwatoko² (1. Shimane Univ., 2. Univ. of Tokyo, 3. Univ. of Hyogo)
- [P23-SF3A-19] Single crystal growth and magnetic properties of Ce₃ZrSb₅
*Keita Nakagawa¹, Masahiro Shinozaki¹, Gaku Motoyama¹, Shinjo Nishigori^{1,2}, Masahiro Manago¹, Kiyotaka Miyoshi¹, Kenji Fujiwara¹ (1. Material Science Shimane University, 2. ICSR Shimane University)
- [P23-SF3A-20] Relation between the lattice volume and characteristic temperatures in Yb-based multiorbital Kondo systems (R, Yb)Rh₂Zn₂₀ (R = Sc, Lu, and Y)
*Takafumi Kitazawa¹, Yoichi Ikeda², Yusei Shimizu³, Akira Matsuo⁴, Minoru Yamashita⁴, Koichi Kindo⁴, Masaki Fujita² (1. Grad. Sch. of Sci., Tohoku Univ., 2. IMR, Tohoku Univ., 3. IRCNMS, IMR, Tohoku Univ., 4. ISSP, Univ. of Tokyo)
- [P23-SF3A-21] Magnetic Properties of Antiferromagnetic Ternary Intermetallic Compound Ce₃Ni₃Si₂
*Yusuke Amakai¹, Ryoju Fujimoto¹, Minoru Ito¹, Tomohito Nakano², Alessia Provino³, Sudesh K Dhar⁴, Pietro Manfrinetti³ (1. Muroran Institute of Technology, 2. Niigata University, 3. University of Genova, 4. Tata Institute of Fundamental Research)
- [P23-SF3A-22] Antiferromagnetic Ground State and Heavy Fermion Behavior in Ce₃TiBi₅
*Gaku Motoyama¹, Masahiro Shinozaki¹, Keita Nakagawa¹, Shijo Nishigori¹, Akira Yamaguchi², Naofumi Aso³, Jun Gouchi⁴, Tetsuya Mutou¹, Yoshiya Uwatoko⁴ (1. Shimane University, 2. University of Hyogo, 3. University of the Ryukyus, 4. University of Tokyo)
- [P23-SF3A-25] Magnetism and 4f Electronic State in Rare-Earth-Based Beryllides RBe₁₃
*Hiroyuki Hidaka¹, Yoshihiko Ihara¹, Chihiro Tabata², Yusei Shimizu³, Tatsuya Yanagisawa¹, Hiroshi Amitsuka¹ (1. Hokkaido Univ., 2. Kyoto Univ., 3. Tohoku Univ.)
- [P23-SF3A-26] Study on Tm Electronic States in TmX₃ (X=Al, Ga, In, and Pd) using X-ray Emission and Photoemission Spectroscopy
*Naomi Kawamura¹, Norimasa Sasabe¹, Akira Yasui¹, Yusuke Hirose², Fuminori Honda³, Kojiro Mimura⁴, Takayuki Uozumi⁴ (1. Japan Synchrotron Radiation Research Institute, 2. Department of Physics, Niigata University, 3. Central Institute of Radioisotope Science and Safe Management, Kyushu University, 4. Department of Physics and Electronics, Osaka Metropolitan University)

- [P23-SF3A-27] Resonant X-Ray Scattering Study of the 5f-electron System UPt_2Si_2
*Fusako Kon¹, Kodai Miura¹, Ruo Hibino¹, Hiroyuki Hidaka¹, Tatsuya Yanagisawa¹, Chihiro Tabata², Hironori Nakao³, Hiroshi Amitsuka¹ (1. Hokkaido University, 2. Kyoto University, 3. KEK)
- [P23-SF3A-28] Elastic properties and crystalline-electric-field effects of UR_2Si_2
*Masato Matsuda¹, Tatsuya Yanagisawa¹, Fusako Kon¹, Hiroyuki Hidaka¹, Hiroshi Amitsuka¹ (1. Hokkaido University)
- [P23-SF3A-29] First-principles calculations of orbital polarization in relativistic density functional theory
*Hiroshi Yamagami¹ (1. Kyoto Sangyo Univ.)
- [P23-SF3A-30] Low-temperature magnetic and transport properties of a new orthorhombic compound CePt_3Sn_2
*Eiichi Matsuoka¹, Hitoshi Sugawara¹, Takahiro Sakurai², Hitoshi Ohta³ (1. Department of Physics, Graduate School of Science, Kobe University, 2. Research Facility Center for Science and Technology, Kobe University, 3. Molecular Photoscience Research Center, Kobe University)
- [P23-SF3A-31] A colossal first-order charge density wave transition in 3D $R2\text{Ir}3\text{Si}5$ ($R = \text{Lu}, \text{Er}, \text{Ho}$) and its interplay with magnetism
*Sitaram Ramakrishnan¹, Andreas Schönleber², Arumugam Thamizhavel³, Minoru Nohara¹, Sander van Smaalen², Srinivasan Ramakrishnan³ (1. Hiroshima University, 2. University of Bayreuth, 3. Tata Institute of Fundamental Research)
- [P23-SF3A-32] Magnetic structures and excitations of Tb_3RuO_7 and Nd_3RuO_7
*Masashi Hase¹, Andreas Doenni¹, Vladimir Yu. Pomjakushin², Kazuhiro Nawa³, Daisuke Okuyama³, Taku J. Sato³ (1. National Institute for Materials Science (NIMS), 2. Paul Scherrer Institut (PSI), 3. Institute of Multidisciplinary Research for Advanced Materials, Tohoku University)
- [P23-SF3A-34] Magnetic anisotropy of YbCuS_2 with an effective spin-1/2 zigzag chain studied by magnetic torque measurements
*Takahiro Onimaru¹, Souichiro Mizutani¹, Rikako Yamamoto¹, Yudai Ohmagari¹, Yasuyuki Shimura¹, Taichi Terashima², Naoki Kikugawa², Takako Konoike², Yuya Hattori² (1. Hiroshima University, 2. National Institute for Materials Science)
- [P23-SF3A-35] **Thermal Conductivity due to Spins in the Two-Dimensional Antiferromagnetic Spin System $\text{La}_2\text{NiO}_{4+\delta}$**
*Yuki Igarashi¹, Takayuki Kawamata^{1,2}, Ryoki Nagaoka¹, Masatsune Kato¹ (1. Tohoku University, 2. Tokyo Denki University)
- [P23-SF3A-36] Chiral-phonon-induced current in helical crystals
*Dapeng Yao¹, Shuichi Murakami¹ (1. Tokyo Institute of Technology)
- [P23-SF3A-37] Electronic and magnetic excitations in van der Waals antiferromagnet MnPS_3 probed by second-harmonic generation
*Ziqian Wang¹, Yuki Shiomi², Akiko Kikkawa¹, Yasujiro Taguchi¹, Taka-hisa Arima¹, Naoki Ogawa^{1,3} (1. RIKEN Center for Emergent Matter Science (CEMS), Saitama 351-0198, Japan, 2. Department of Basic Science, The University of Tokyo, Tokyo 153-8902, Japan, 3. Department of Applied Physics, University of Tokyo, Tokyo 113-8656, Japan)
- [P23-SF3A-39] Quadrupole phase transition in a cubic $4f^2$ compound PrCdNi_4 with a non-Kramers doublet ground state
*Yuka Kusanose¹, Takahiro Onimaru¹, Yasuyuki Shimura¹, Kazunori Umeo², Toshiro Takabatake¹ (1. Graduate School of Advanced Science and Engineering, Hiroshima University, Higashi-Hiroshima, Hiroshima 739-8530, Japan, 2. Department of Low Temperature Experiment, Integrated Experimental Support / Research Division, N-BARD, Hiroshima University, Higashi-Hiroshima, Hiroshima 739-8526, Japan)
- [P23-SF3A-41] Low-temperature hysteresis broadening and metastability in electronic systems with a first-order phase transition

*Keisuke Matsuura¹, Yo Nishizawa², Hiroshi Oike^{1,2}, Vilmos Kocsis¹, Takuro Sato¹, Yasuhide Tomioka³, Yoshio Kaneko¹, Masao Nakamura¹, Takashi Kurumaji⁴, Markus Kriener¹, Yasujiro Taguchi¹, Masashi Kawasaki^{1,2}, Yoshinori Tokura^{1,2,5}, Fumitaka Kagawa^{1,6} (1. RIKEN Center for Emergent Matter Science, 2. Department of Applied Physics and Quantum-Phase Electronics Center (QPEC), University of Tokyo, 3. National Institute of Advanced Industrial Science and Technology, 4. Department of Advanced Materials Science, University of Tokyo, 5. Tokyo College, University of Tokyo, 6. Department of Physics, Tokyo Institute of Technology)

[P23-SF3A-42] Highly anisotropic magnetic phase diagram of the ferromagnetic rare-earth diboride HoB₂
*Takafumi D. Yamamoto¹, Hiroyuki Takeya¹, Kensei Terashima¹, Akiko T. Saito¹, Takenori Numazawa¹, Yoshihiko Takano^{1,2} (1. National Institute for Materials Science, 2. University of Tsukuba)

[P23-SF3A-44] Inelastic neutron scattering study on the two-dimensional triangular antiferromagnet FeGa₂S₄
*Yifei Tang¹, you Kawamoto¹, Masahiro Kawamata¹, Kenji Nakajima^{2,3}, Masato Matsuura⁴, Masaki Fujita⁵, Yusuke Nambu^{5,6,7} (1. Department of Physics, Tohoku University, 2. J-PARC Center, JAEA, 3. Materials Sciences Research Center, JAEA, 4. J-PARC Center, CROSS, 5. Institute for Materials Research, Tohoku University, 6. Organization for Advanced Studies, Tohoku University, 7. FOREST, Japan Science and Technology Agency)

[P23-SF3A-45] Second harmonic imaging of multipolar domains in antiferromagnetic MnTiO₃
*Daiki Sekine¹, Tatsuki Sato², Yusuke Tokunaga², Taka-hisa Arima², Masakazu Matsubara^{1,3} (1. Department of Physics, Tohoku University, 2. Department of Advanced Materials Science, The University of Tokyo, 3. Center for Science and

Innovation in Spintronics, Tohoku University)

[P23-SF3A-46] Low-energy models and correlation effects in monolayer niobium dichalcogenides
*Sergey Nikolaev¹, Daria Medvedeva² (1. Tokyo Institute of Technology, 2. Institute of Physics, Czech Academy of Science)

Poster

[P23-SF3B] Poster 4 remote
9:00 PM - 11:00 PM Poster (Main Hall B)

[P23-SF3B-01] Topological Floquet modes in a two level system
*Haru K Park¹, Junmo Jeon¹, Gil Young Cho^{2,3,4}, SungBin Lee¹ (1. Korea Advanced Institute of Science and Technology, 2. Department of Physics, Pohang University of Science and Technology (POSTECH), Pohang 37673, Republic of Korea, 3. Center for Artificial Low Dimensional Electronic Systems, Institute for Basic Science (IBS), Pohang 37673, Republic of Korea, 4. Asia Pacific Center for Theoretical Physics, Pohang 37673, Republic of Korea)

[P23-SF3B-02] Low temperature magnetic properties of filled skutterudites RFe₄P₁₂ (R = Ho, Er) prepared under high pressure
*Satoshi Terasaka¹, Kousuke Ueno¹, Chihiro Sekine¹ (1. Muroran Institute of Technology)

[P23-SF3B-03] Third-order conductivity measurement in α-(BEDT-TTF)₂I₃ near charge-ordering temperature
*Ryuji Okazaki¹, Mayu Ishii¹, Masafumi Tamura¹ (1. Tokyo University of Science)

[P23-SF3B-04] Exchange between easy-magnetization axes in α-Dy₂S₃ single crystal induced by uni-axial pressure
*Shuji Ebisu¹, Ryoma Nakatsuka¹, Lijuan Zhao¹, Masanori Miyazaki¹ (1. Muroran Institute of Technology)

[P23-SF3B-05] Thermal expansion measurements of the Cage Compound PrIr₂Zn₂₀ at Ultra-low temperatures in the high magnetic fields

- Saeka Nakajima¹, *Momoka Asai¹, Shota Nakashima¹, Koichi Matsumoto¹, Satoshi Abe¹, Keisuke T Matsumoto², Yu Yamane², Takahiro Onimaru² (1. Kanazawa University, 2. Hiroshima University)
- [P23-SF3B-06] Magnetic susceptibility of α -SmRS₃ (R = Tb, Dy) single crystal: Effect of the multiplexing of rare earth in α -Sm₂S₃
*Lijuan Zhao¹, Rie Asano¹, Masanori Miyazaki¹, Shuji Ebusu¹ (1. Muroran Institute of Technology)
- [P23-SF3B-07] Observation of single-material Peltier effect using magnetic phase transition in Mn_{2-x}Cr_xSb
*Kurea Nakagawa¹, Tomoyuki Yokouchi¹, Yuki Shiomi¹ (1. University of Tokyo)
- [P23-SF3B-08] Change in ESR spectrum induced by distortion of crystal structure of Mn₃O₄ nanoparticles
*Takayuki Tajiri¹, Hiroyuki Deguchi², Masaki Mito², Atsushi Kohno¹ (1. Fukuoka University, 2. Kyushu Institute of Technology)
- [P23-SF3B-09] Transport and thermal properties of alpha-Mn under pressure
*Tomohito NAKANO¹, Kei Fukuhra¹, Arisa Tomaru¹, Hayato Muto¹, Naoya Takeda¹, Yusuke Amakai², Shigeyuki Murayama² (1. Niigata Univ., 2. Muroran Inst. of Tech.)
- [P23-SF3B-10] Ultrasonic investigation of the magnetic ordering in Er₃Ru₄Al₁₂ with a distorted kagome lattice
*Isao Ishii¹, Yuki Kurata¹, Hitoshi Muneshige¹, Alexander V. Andreev², Denis I. Gorbunov³, Minoru Nohara¹, Takashi Suzuki¹ (1. Hiroshima university, 2. Czech Academy of Sciences, 3. Helmholtz-Zentrum Dresden-Rossendorf)
- [P23-SF3B-11] **Ultrasound velocity measurements in pseudo-brookite-type magnet ATi₂O₅ (A = Fe, Co)**
*Ray Nishimura¹, Kazuya Takayanagi¹, Franz Lang², Franziska Kirschner², Dharmalingam Prabhakaran², Stephen Blundell², Yoshiaki Hara³, Tadataka Watanabe¹ (1. Nihon University, 2. University of Oxford, 3. Ibaraki College)
- [P23-SF3B-12] Elastic softening due to the quadrupole interaction between the singlets of the crystal field in HoNiAl
*Hitoshi Muneshige¹, Isao Ishii¹, Yuki Wada¹, Alexander V Andreev², Minoru Nohara¹, Takashi Suzuki¹ (1. Hiroshima University, 2. Czech Academy of Sciences)
- [P23-SF3B-14] Magnetic and Transport Properties of EuCuIn₄ Single Crystals
*Ai Nakamura¹, Hirota Tanaka², Yuta Ameku², Dexin Li¹, Dai Aoki¹, Masato Hedo³, Takao Nakama³ (1. Institute for Materials Research, Tohoku University, 2. Graduate School of Engineering and Science, University of the Ryukyus, 3. Faculty of Science, University of the Ryukyus)
- [P23-SF3B-15] Magnetocaloric effect in ErB₂
*Keisuke Matsumoto¹, Mahato Kani², Koichi Hiraoka¹ (1. Graduate School of Science and Engineering, Ehime University, 2. Department of Materials Science and Engineering, Ehime University)
- [P23-SF3B-16] Magnetic Phase Diagram and Transport Properties of EuZn₁₁ Single Crystals
Yuta Ameku¹, Hirota Tanaka¹, Miho Nakashima², Yasushi Amako², Ai Nakamura³, Dexin Li³, Dai Aoki³, *Masato Hedo¹, Takao Nakama¹ (1. Univ. Ryukyus, 2. Shinshu Univ., 3. IMR, Tohoku Univ.)
- [P23-SF3B-17] Thermodynamic and transport properties of thiospinel FeCr₂S₄
*Masakazu Ito¹, Keita Sakai², Yusuke Imamura², Ryota Kashima² (1. Education center, Kagoshima University, 2. Graduate School of Science and Engineering, Kagoshima University)
- [P23-SF3B-18] Multiple Magnetic Transitions and Transport Properties in EuNiSi₃ Single Crystals
*Takao Nakama¹, Hirota Tanaka¹, Yuta Ameku¹, Ai Nakamura², Dexin Li², Dai Aoki², Masato Hedo¹ (1. University of the Ryukyus, 2. Tohoku University)
- [P23-SF3B-19] Synthesis and magnetic properties of A_xSr_{2-x}TiO₄ (A = Y, La)

- *Hiroki Abe¹, Masanori Miyazaki¹, Naofumi Nakazato¹, Hirotsatsu Kishimoto¹, Atsunori Kamegawa¹, Hajime Yamamoto², Shuji Ebisu¹ (1. muroran institute of technology, 2. Tohoku University)
- [P23-SF3B-20] Control of Multi-domain Structure in CaBaCo₄O₇ Crystal
*Hinata Arai¹, Takumi Shirasaki¹, Mitsuru Akaki², Haruhiko Kuroe¹, Hideki Kuwahara¹ (1. Sophia University, 2. Tohoku University)
- [P23-SF3B-21] Thermoelectric transport of charge-ordered organic molecular conductor α -(BEDT-TTF)₂I₃
*Kyohei Eguchi¹, Ryuji Okazaki¹ (1. Tokyo Univ. of Sci.)
- [P23-SF3B-22] **Elastic properties of the approximant TbCd₆ proved by ultrasonic measurements**
*Kandai Fujikawa¹, Taichi Yoshida¹, Kazuhei Wakiya¹, Mitsuteru Nakamura¹, Masahito Yoshizawa¹, Yuji Muro², Yoshiki Nakanishi¹ (1. Iwate Univ., 2. Toyama Prefectural Univ.)
- [P23-SF3B-23] **Microwave spectroscopy of canted antiferromagnet MnCO₃**
*Takahiko Makiuchi¹, Kikkawa Takashi¹, Sichanugrist Thanaporn¹, Junki Numata¹, Saburo Takahashi², Eiji Saitoh^{1,2,3} (1. the University of Tokyo, 2. Tohoku University, 3. Japan Atomic Energy Agency)
- [P23-SF3B-24] Correlation Between Magnetic Properties and Crystal Growth in Perovskite Type La_{1-x}Ca_xMnO₃ Ferromagnet
*Keisuke Ida¹, Kousei Ishiwatari¹, Masashi Ohashi¹ (1. Kanazawa university)
- [P23-SF3B-25] μ SR study of successive magnetic transitions in α -R₂S₃ (R=Sm, Dy)
*Masanori Miyazaki¹, Lijuan Zhao¹, Ryoma Nakatsuka¹, Yipeng Cai², Kenji M Kojima^{2,3} (1. Muroran Institute of Technology, 2. The University of British Columbia, 3. TRIUMF)
- [P23-SF3B-26] Measurement of physical properties in Eu₃Bi₂S₄F₄ under high pressure
*Kento Ishigaki¹, Xiaoling Shen², Hui-Fei Zhai³, Yishuai Jing⁴, Hisao Kobayashi¹, Yoshiya Uwatoko⁵ (1. Graduate School of Material Science, University of Hyogo, 2. Department of Physics, Yokohama National University, 3. College of Science, China Jiliang University, 4. Department of Physics, Northwest University, 5. The Institute for Solid State Physics, The University of Tokyo)
- [P23-SF3B-27] First-principles study of intercalated transition metal dichalcogenides
*Tatsuto Hatanaka¹, Ryotaro Arita^{1,2}, Takuya Nomoto¹ (1. University of Tokyo, 2. RIKEN CEMS)
- [P23-SF3B-28] Magnetic ordering disappears near 1 Mbar in Europium
*Koki Kanda¹, Kstsuya Shimizu¹ (1. Osaka University)
- [P23-SF3B-29] ⁷⁷Se NMR studies of excitonic insulator candidate Ta₂NiSe₅ under High Pressure
*Ziyang Liu¹, Kazuhiro Aoki¹, Shunsuke Kawai¹, Yasuhiro Shimizu¹, Taku Matsushita¹, Masayuki Itoh¹, Yoshiaki Kobayashi¹ (1. Nagoya University)
- [P23-SF3B-30] Revisit on Piezomagnetic Effect in Rutile-type Antiferromagnets MF₂ (M = Mn, Co)
*Minato Komuro¹, Takuya Aoyama¹, Kenya Ohgushi¹ (1. Department of Physics, Tohoku University)
- [P23-SF3B-31] Development of Field-Angle-Dependent ESR Measurement Method under High Pressure by Thermal Detection
*Naoki Nagasawa¹, Takahiro Sakurai², Hideyuki Takahashi³, Eiji Ohmichi¹, Hitoshi Ohta^{1,3} (1. Graduate School of Science, Kobe University, 2. Research Facility Center for Science and Technology, Kobe University, 3. Molecular Photoscience Research Center, Kobe University)
- [P23-SF3B-32] Antiferromagnetic order and superzone gap formation in a Yb-based intermetallic compound YbPt₅Al₂
*Yudai Kawaue¹, Ryohei Oishi¹, Yuka Kusanose¹, Rikako Yamamoto¹, Kazunori Umeo¹, Yasuyuki Shimura¹, Toshiro

- Takabatake¹, Takahiro Onimaru¹ (1. Hiroshima Univ.)
- [P23-SF3B-34] Elastic properties of the approximant GdCd₆ proved by ultrasonic measurements
*Kensuke Jin¹, Taichi Yoshida¹, Mituteru Nakamura¹, Masahito Yoshizawa¹, Yuji Muro², Kazuhei Wakiya¹, Yoshiki Nakanishi¹ (1. Iwate university, 2. Toyama prefectural Univesity)
- [P23-SF3B-35] NMR study on the Shastry-Sutherland Magnet TmB₄
*Takeshi Mito¹, Taiki Nakayama¹, Keisuke Miyamoto¹, Yusuke Nakai¹, Koichi Ueda¹, Slavomir Gabani², Gabriel Pristas², Karol Flachbart², Konral Siemensmeyer³, Natalia Shitsevalova⁴ (1. University of Hyogo, 2. Slovak Academy of Sciences, 3. Hahn Meitner Institut Berlin, 4. National Academy of Science of Ukraine)
- [P23-SF3B-36] Spin-1 Magnets — A u(3) Formalism
*Kimberly Remund¹, Rico Pohle², Yutaka Akagi², Judit Romhányi³, Nic Shannon¹ (1. OIST, 2. The University of Tokyo, 3. UC Irvine)
- [P23-SF3B-37] Magnetization steps of non-interacting Mn³⁺ ions in dilute GaN:Mn
*Katarzyna Gas¹, Dariusz Sztenkiel¹, Piotr Wiśniewski², Yadhu Krishnan Edathumkandy¹, Rafal Jakiela¹, Małgorzata Iwinska³, Tomasz Sochacki³, Michał Bockowski³, Hanka Przybylinska¹, Maciej Sawicki¹ (1. Institute of Physics, Polish Academy of Sciences, Warsaw, Poland, 2. Institute of Low Temperature and Structure Research, Polish Academy of Sciences, Wrocław, Poland, 3. Institute of High Pressure Physics, Polish Academy of Sciences Warsaw, Poland)
- [P23-SF3B-38] Reorientation of magnetization in a dilute ferromagnetic semiconductor through piezoelectromagnetic coupling
Dariusz Sztenkiel¹, Yadhu Krishnan Edathumkandy¹, Katarzyna Gas¹, Tomasz Dietl^{2,3}, *Maciej Sawicki¹ (1. Institute of Physics Polish Academy of Sciences, 2. MagTop, Institute of Physics, Polish Academy of Sciences. Warsaw, Poland , 3. WPI-Advanced Institute for Materials Research, Tohoku University, Sendai, Japan)
- [P23-SF3B-40] Magnetization and local structure of diluted semiconductor of Zn_{1-x}Gd_xO Nanoparticles
Mitsuhiko Okimasu¹, *Kazune Nii¹, Kentaro Ohara¹, Kenta Nakazawa¹, Takeshi Sakamoto¹, Tomomasa Moriwaki¹, Yuko Ichianagi¹ (1. Yokohama National University)
- [P23-SF3B-41] Memory Effects in Spin Glass Fe_{0.5}Mn_{0.5}TiO₃
Airi Furukawa¹, Hiroko Katori Aruga², *Hazuki Furukawa^{3,4} (1. Crimson Global Academy, 2. Tokyo University of Agriculture & Technology, 3. Ochanomizu University, 4. RIKEN)
- [P23-SF3B-42] Low temperature transport properties of manganese thin film epitaxially grown on hexagonal lattice substrate
*Akihide Moriyama¹, Nona Avena Purba¹, Keishiro Kobayashi¹, Naoki Denda¹, Kazutoshi Shimamura¹, Masashi Ohashi¹, Yasuo Yoshida¹ (1. Kanazawa University)
- [P23-SF3B-46] Giant Anomalous Nernst Signal in the Honeycomb and Kagome Magnet LaCo₅
*Sheng Xu^{1,2}, Shu-Xiang Li¹, Chengxi Jiang¹, Xiang-Yu Zeng², Tian-Long Xia², Zhu-An Xu¹ (1. Zhejiang University, 2. Renmin University of China)
- [P23-SF5-13] Development of a cooling system for a SQUID magnetometer using an adiabatic demagnetization refrigeration of GGG substrates
*Motoi Mikawa¹, Yasuo Narumi¹, Masayuki Hagiwara¹ (1. Center for Advanced High Magnetic Field Science, Graduate School of Science, Osaka University)
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- Poster
- [P23-SF4] Poster 4 remote
9:00 PM - 11:00 PM Poster (Main Hall B)
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- [P23-SF4-04] Quantum dot pump coupled with a single quantum Hall edge
*Wanki Park¹, Sung Un Cho¹, Myung-Ho Bae^{2,3},

- H.-S. Sim¹ (1. Korea Advanced Institute of Science and Technology, 2. Korea Research Institute of Standards and Science, 3. University of Science and Technology)
- [P23-SF4-05] Acoustically-induced pseudo-gauge fields and anomalous transport phenomena in graphene
*Pai Zhao¹, Chithra H. Sharma¹, Ren R. Liang², Lev Mourokh³, Vadim M. Kovalev^{4,5}, Lars Tiemann¹, Robert H. Blick¹ (1. Center for Hybrid Nanostructures, University of Hamburg, Luruper Chaussee 149, Hamburg 22761, Germany, 2. School of Integrated Circuits, Tsinghua University, Beijing 100084, China, 3. Department of Physics, Queens College of the City University of New York, Flushing, NY11367, USA, 4. A.V. Rzhanov Institute of Semiconductor Physics, Siberian Branch of Russian Academic of Science, Novosibirsk 630090, Russia, 5. Novosibirsk State Technical University, Novosibirsk 630073, Russia)
- [P23-SF4-06] Entanglement and Kondo cloud of multi-channel Kondo effects
*Donghoon Kim¹, Jeongmin Shim^{1,2}, H.-S. Sim¹ (1. Korea Advanced Institute of Science and Technology, 2. Ludwig-Maximilians-Universität München)
- [P23-SF4-07] Spin transport in a Fermi-Hubbard optical lattice interacting with a Fermi gas bath
*Vladimir Paat Villegas^{1,2}, Cristine De Los Reyes Villagonzalo¹ (1. University of the Philippines, 2. De La Salle University)
- [P23-SF4-08] Impact of channel mixing on the visibility of two-particle interferometry in quantum Hall edge states
*Matteo Acciai¹, Preden Roulleau², Imen Taktak², D. Christian Glattli², Janine Splettstoesser¹ (1. Department of Microtechnology and Nanoscience (MC2), Chalmers University of Technology, S-412 96 Göteborg, Sweden, 2. Université Paris-Saclay, CEA, CNRS, SPEC, 91191 Gif-sur-Yvette, France)
- [P23-SF4-09] Time-resolved measurement of edge magnetoplasmon transport in electron-hole bilayer systems
*Hiroshi Kamata^{1,2}, Hiroshi Irie¹, Satoshi Sasaki¹, Norio Kumada¹, Koji Muraki¹ (1. NTT Basic Research Laboratories, NTT Corporation, 2. JST, PRESTO)
- [P23-SF4-10] Twisted Boundary Condition and Thermal Response in One-Dimensional Quantum Systems
*Ryota Nakai¹, Taozhi Guo², Shinsei Ryu², Kentaro Nomura¹ (1. Kyushu University, 2. Princeton University)
- [P23-SF4-11] Universal Scaling property of Linear Conductance through a Kondo Dot in Magnetic Field and its Application
*Rui Sakano¹, Tokuro Hata², Kaiji Motoyama³, Yochimichi Teratani³, Tomonori Arakawa⁴, Meydi Ferrier⁵, Richard Deblock⁵, Mikio Eto¹, Kensuke Kobayashi⁶, Akira Oguri³ (1. Keio university, 2. Tokyo Institute of Technology, 3. Osaka City University, 4. National Institute of Advanced Industrial Science and Technology, 5. Université Paris-Saclay, 6. University of Tokyo)
- [P23-SF4-12] Thermal Hall response: violation of gravitational analogues and Einstein relations
*Jinhong Park¹, Omri Golan², Yuval Vinkler-Aviv¹, Achim Rosch¹ (1. University of Cologne, 2. Weizmann Institute of Science)
- [P23-SF4-13] **Spatially Resolved Observation of Dynamic Nuclear Spin Polarization in $\nu=2/3$ Fractional Quantum Hall States**
*Akira Fukuda¹, Akira Endo², Yoshiaki Hashimoto², Shingo Katsumoto² (1. Department of Physics, School of Medicine, Hyogo Medical University, 2. Institute for Solid State Physics, The University of Tokyo)
- [P23-SF4-14] **Microwave spectroscopy of Andreev states in mesoscopic InAs nanowire-based hybrid Josephson junctions**
*Patrick Zellekens¹, Russell Deacon^{1,2}, Pujitha Perla^{3,4}, Mihail Ion Lepsa^{3,4}, Detlev Grützmacher^{3,4}, Thomas Schäpers^{3,4}, Koji Ishibashi^{1,2} (1. RIKEN Center for Emergent Matter Science, 351-0198 Saitama, Japan, 2. Advanced Device Laboratory, RIKEN, 351-0198

Saitama, Japan, 3. Peter Grünberg Institute,
Forschungszentrum Jülich, 52428 Jülich,
Germany, 4. JARA-FIT, Fundamentals of Future
Information Technology)

[P23-SF4-15] **Negative magnetoresistance without
topological effect in nodal line
semimetals**

*Yudai Awashima¹, Yuki Fuseya¹ (1.
University of Electro-Communication)

[P23-SF4-17] S-matrix based calculation of bound
states in the continuum in quantum-dot
nano-junctions.

*Ricardo Yael Diaz¹, Mauricio Javier Rodrí-
guez¹, Carlos Ramírez¹ (1. Departamento de
Física, Facultad de Ciencias, Universidad
Nacional Autónoma de México)

[P23-SF4-18] Recursive scattering matrix method for
the study of quantum transport in
nanostructures

*Carlos Ramirez¹, Mauricio J Rodríguez¹,
Ricardo Y Díaz¹ (1. Departamento de Física,
Facultad de Ciencias, Universidad Nacional
Autónoma de México)

[P23-SF4-19] Orbital origin of negative
magnetoresistance and planar Hall effect
in Weyl electron system

*Akiyoshi Yamada¹, Yuki Fuseya² (1.
University of Tokyo, 2. University of Electro-
Communications)

[P23-SF4-20] Kondo screening and Andreev scattering
in a triangular triple quantum dot
connected to normal and superconducting
leads

*Masashi Hashimoto¹, Yoshimichi Teratani^{1,2},
Masaya Shirotani¹, Yukihiko Nakata¹, Masashi
Shimamoto¹, Yoichi Tanaka³, Yasuhiro
Yamada⁴, Akira Oguri^{1,2} (1. Osaka City
University, 2. NITEP, Osaka City University, 3.
Advanced Simulation Technology of Mechanics
R&D, 4. NTT Basic Research Laboratories)

[P23-SF4-21] Nuclear spin polarization near quantum
point contact under Gaussian disorder
potential

*Tomosuke Aono¹ (1. Ibaraki University)

[P23-SF4-22] Ionic-Liquid Gating of Magnetically-
doped Topological Insulator Fe-Doped

BiSbTe₂Se

*Tsuyoshi Tanda¹, Rikizo Yano¹, Hishiro T
Hirose², Takao Sasagawa², Satoshi Kashiwaya¹
(1. Nagoya University, 2. Tokyo Tech)

[P23-SF4-24] Nonequilibrium transport and Kondo
effect in quantum dot with AC field
Miyu Umebayashi¹, *Mikio Eto¹ (1. Keio
University)

[P23-SF4-25] Electrical control of the Kondo spin
screening in a quantum box

*Han Ngoc Tu¹, Michihisa Yamamoto¹, David
Pomaranski¹, Ryo Ito¹, Heung-Sun Sim²,
Jeongmin Shim², Arne Ludwig³, Andreas D.
Wieck³ (1. Center for Emergent Matter
Science (CEMS), RIKEN, Saitama 351-0198,
Japan, 2. Department of Physics, KAIST,
Daejeon, South Korea, 3. Lehrstuhl für
Angewandte Festkörperphysik, Ruhr-
Universität Bochum, Germany)

[P23-SF4-26] Suspended Graphene as a Platform for
Studying 1/f Noise

Masahiro Kamada¹, Antti Laitinen¹, *Weijun
Zeng^{1,2}, Marco Will¹, Jayanta Sarkar¹, Kirsi
Tappura^{3,4}, Heikki Seppä³, Sheng-Shiuan Yeh⁵,
Pertti Hakonen^{1,2} (1. Low Temperature
Laboratory, Department of Applied Physics,
Aalto University, Finland, 2. QTF Centre of
Excellence, Department of Applied Physics,
Aalto University, Finland, 3. Microelectronics
and quantum technology, VTT Technical
Research Centre of Finland Ltd., Finland, 4.
Microelectronics and quantum technology, VTT
Technical Research Centre of Finland Ltd., QTF
Centre of Excellence, Finland, 5. International
College of Semiconductor Technology,
National Yang Ming Chiao Tung University,
Taiwan)

[P23-SF4-29] Kitaev Nanoribbon Model with Boundary
Dephasing

*Shunta Kitahama¹, Naoyuki Shibata¹, Hosho
Katsura^{1,2,3} (1. Department of Physics, The
University of Tokyo, 2. Institute for Physics
of Intelligence, The University of Tokyo, 3.
Trans-scale Quantum Science Institute, The
University of Tokyo)

[P23-SF4-30] Nonlinear valley transport in

hydrodynamic regime

*Ryotaro Sano¹, Daigo Oue^{2,3}, Mamoru Matsuo^{3,4,5} (1. Kyoto University, 2. Imperial College London, 3. University of Chinese Academy of Sciences, 4. RIKEN Center for Emergent Matter Science, 5. Japan Atomic Energy Agency)

Poster

[P23-SF5] Poster 4 remote

9:00 PM - 11:00 PM Poster (Main Hall B)

[P23-SF5-01] Cross-Correlated Noise Thermometers for Milli- and Micro-Kelvin Measurements and in High Magnetic Fields

Christian Ständer¹, Pascal Willer¹, Nathalie Probst¹, *Andreas Reifenberger¹, Andreas Reiser¹, Andreas Fleischmann¹, Christian Essl¹ (1. Heidelberg University)

[P23-SF5-03] Radio-Frequency Coulomb-Blockade Thermometry

*Yu-Cheng Chang¹, Florian Blanchet¹, Bayan Karimi¹, Joonas T. Peltonen¹, Jukka P. Pekola¹ (1. Aalto university)

[P23-SF5-05] NbTi Nanowire Oscillators with Circular Cross-Section

Samuli Autti¹, Marie Connelly¹, Courtney C. E. Elmy¹, James Gorman¹, Rich P. Haley¹, *Asher Jennings², George R. Pickett¹, Jonathan R. Prance¹, Tineke H. Salmon¹, Jack Slater¹, Evgeny V. Surovtsev³, Michael Thompson¹, Viktor Tsepelin¹, Vladislav Zavyalov¹, Dmitry E. Zmeev¹ (1. Department of Physics, Lancaster University, Lancaster LA1 4YB, UK, 2. RIKEN Center for Quantum Computing, RIKEN, Wako, 351-0198, Japan, 3. Kapitza Institute for Physical Problems, Russian Academy of Sciences, Moscow 119334, Russia)

[P23-SF5-06] Modulation calorimetry in dilution temperatures

*Zuzana Pribulova¹, Jozef Kačmarčík¹, Benoît Fauqué², Thierry Klein³, Christophe Marcenat⁴ (1. Institute of Experimental Physics SAS, Kosice, Slovakia, 2. 2JEIP, USR 3573 CNRS, College de France, PSL Research University, 11, Paris Cedex 05, France, 3. Université

Grenoble Alpes, CNRS, Grenoble INP, Institut Néel, Grenoble, France, 4. Université Grenoble Alpes, CEA, IRIG, PHELIQS, LATEQS, Grenoble, France)

[P23-SF5-07] Visualization of the mechano-thermal effect on the pinning structure in the NbTi using magneto-optics method
Volodymyr F. Rusakov¹, *Oleksandr Chumak², Viktor V. Chabanenko³, Olena I. Kuchuk³, Irina Abaloszewa², Aleksander Abaloszew², Adam Nabałek², Roman Puźniak² (1. National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute", Kyiv 03056 Ukraine, 2. Institute of Physics, Polish Academy of Sciences, Warsaw 02 668, Poland, 3. O.Galkin Donetsk Institute for Physics and Engineering, NAS of Ukraine, Kyiv 03028 Ukraine)

[P23-SF5-08] **Sensing superconducting vortices with Dayem nanobridge**

*Marek Foltyn¹, Konrad Norowski¹, Maciej Zgirski¹ (1. Polish Academy of Sciences, Institute of Physics)

[P23-SF5-09] CAPP Axion Search Experiments with Quantum Noise Limited Amplifiers

*Sergey V. Uchaikin¹, Boris I. Ivanov¹, Jinmyeong Kim^{2,1}, Caglar Kutlu^{2,1}, Arjan Ferdinand van Loo^{3,4}, Yasunobu Nakamura⁴, Seonjeong Oh¹, Violeta Gkika¹, Andrei Matlashov¹, Woohyun Chung¹, Yannis K Semertzidis^{1,2} (1. Center for Axion and Precision Physics Research, Institute for Basic Science, Daejeon, 34051, South Korea, 2. Korea Advanced Institute of Science and Technology, Daejeon 34051, Republic of Korea, 3. RIKEN Center for Quantum Computing (RQC), Wako, Saitama 351-0198, Japan, 4. Department of Applied Physics, Graduate School of Engineering, The University of Tokyo, Bunkyo-ku, Tokyo 113-8656, Japan)

[P23-SF5-10] Josephson parametric amplifier in axion experiments

*JinMyeong Kim^{1,2}, Boris I. Ivanov², Caglar Kutlu^{1,2}, Sergey V. Uchaikin², Arjan Ferdinand van Loo^{3,4}, Yasunobu Nakamura⁴, Seonjeong Oh², Violeta Gkika², Andrei Matlashov²,

Woohyun Chung², Yannis K Semertzidis^{2,1},
SeongTae Park² (1. Korea Advanced Institute
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Tokyo, Bunkyo-ku, Tokyo 113-8656, Japan)

[P23-SF5-11] 4 channel system for Josephson

parametric amplifier characterization

*Boris Igorevitch Ivanov¹, Jinmyeong Kim^{2,1},
Caglar Kutlu^{2,1}, Arjan Ferdinand van Loo^{3,4},
Yasunobu Nakamura⁴, Sergey V Uchaikin¹,
Seonjeong Oh¹, Violeta Gkika¹, Andrei
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Engineering, The University of Tokyo, Bunkyo-
ku, Tokyo 113-8656, Japan)

[P23-SF5-12] Systematic Approach for Tuning Flux-
driven Josephson Parametric Amplifiers
for Stochastic Small Signals

*Caglar Kutlu^{1,2}, Saebyeok Ahn^{1,2}, Sergey V.
Uchaikin², Soohyung Lee², Arjan Ferdinand van
Loo^{3,4}, Yasunobu Nakamura⁴, Seonjeong Oh²,
Yannis Semertzidis^{2,1} (1. Korea Advanced
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Graduate School of Engineering, The
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8656, Japan)