

International Conference on Quantum Liquid Crystals 2023 (QLC2023)

August 8-10, 2023 / Open Hall, Hokkaido University

Tuesday, August 8, 2023

09:15-09:30	Opening <i>Takasada Shibauchi, Co-Chair of QLC2023 (Univ. of Tokyo, Japan)</i>
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	Session 1 <i>Chair: Atsushi Fujimori (National Tsing Hua Univ., Taiwan)</i>
09:30-10:00	Superconducting gap function and specific heat below T_c in doped FeSe near a nematic QCP <i>Andrey V. Chubukov (Univ. of Minnesota, USA)</i>
10:00-10:30	Emergence of multipole polaron and electronic anisotropy in the devil's staircase of CeSb <i>Kenta Kuroda (Hiroshima Univ., Japan)</i>

	Session 2 <i>Chair: Kenya Ohgushi (Tohoku Univ.)</i>
10:50-11:10	Spin switching by terahertz Floquet engineering using Tesla-class fields in antiferromagnets <i>Hideki Hirori (Kyoto Univ., Japan)</i>
11:10-11:30	Electric-field control of magnetic textures and topological orders in Mott insulators <i>Masahiro Sato (Chiba Univ., Japan)</i>
11:30-11:50	Optically induced magnetization switching in NiCo_2O_4 thin films by using Ultrafast Lasers <i>Hiroki Watati (Univ. of Hyogo, Japan)</i>

13:00-14:30	Poster Session 1 Academic Lounge 1 & 2 Academic Lounge 1 & 2 open from 8:30 to 18:30
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	Session 3 <i>Chair: Tetsuo Hanaguri (RIKEN, Japan)</i>
15:00-15:30	Interaction-driven quantum anomalous Hall state, Josephson diode effect and flat band superconductivity with quantum metric in moiré materials <i>Kam Tuen Law (Hong Kong Univ. of Science and Technology, Hong Kong)</i>
15:30-15:50	Nonreciprocal charge transport of fluctuating finite-momentum Cooper pairs <i>Akito Daido (Kyoto Univ., Japan)</i>
15:50-16:10	Manipulating the nematic director by magnetic fields in the spin-triplet superconducting states of $\text{Cu}_x\text{Bi}_2\text{Se}_3$ and $\text{K}_2\text{Cr}_3\text{As}_3$ <i>Kazuaki Matano (Okayama Univ., Japan)</i>

	Session 4 <i>Chair: Ryotaro Arita (RIKEN / Univ. of Tokyo, Japan)</i>
16:30-17:00	Phonon dynamics in the Kitaev materials <i>Natalia Perkins (Univ. of Minnesota, USA)</i>
17:00-17:20	Computational design of Kitaev materials <i>Yukitoshi Motome (Univ. of Tokyo, Japan)</i>
17:20-17:40	Spin loop-current textures in the Hubbard models <i>Takami Tohyama (Tokyo Univ. of Science, Japan)</i>

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Session 5 Chair: Hiroshi Kontani (Nagoya Univ., Japan)	
09:00-09:30	Ultranodal state in multiband spin-1/2 superconductors <i>Peter J. Hirschfeld (Univ. of Florida, USA)</i>
09:30-10:00	Smectic Pair Density Wave in $\text{EuRbFe}_4\text{As}_4$ <i>Abhay Narayan Pasupathy (Brookhaven National Laboratory / Columbia Univ., USA)</i>
10:00-10:20	Exotic pairing states with time-reversal symmetry breaking in FeSe-based nematic superconductors <i>Takasada Shibauchi (Univ. of Tokyo, Japan)</i>

Session 6 Chair: Takasada Shibauchi (Univ. of Tokyo, Japan)	
10:40-11:10	Electronic liquid crystal state in a kagome lattice antiferromagnet <i>Pengcheng Dai (Rice Univ., USA)</i>
11:10-11:30	Bond Order Fluctuation Mechanism: Loop Current, Bond Order and Their Coexisting Phase in AV_3Sb_5 <i>Rina Tazai (Kyoto Univ., Japan)</i>
11:30-12:00	Discovery of a Novel Dirac Quantum Spin Liquid Candidate <i>Sara Haravifard (Duke Univ., USA)</i>

13:00-14:30	Poster Session 2 Academic Lounge 1 & 2 Academic Lounge 1 & 2 open from 8:30 to 18:30
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Session 7 Chair: Takami Tohyama (Tokyo Univ. Science, Japan)	
15:00-15:30	Micro-ARPES study of exotic quantum materials <i>Takafumi Sato (Tohoku Univ., Japan)</i>
15:30-16:00	Quantum Material Micro-Resonators to Probe Symmetry Breaking <i>Carsten Putzke (EPFL, Switzerland)</i>
16:00-16:20	Scanning tunneling microscopy observation of symmetry breaking in Landau levels at the ZrSiS surface <i>Christopher J. Butler (RIKEN, Japan)</i>

Session 8 Chair: Kensuke Kobayashi (Univ. of Tokyo, Japan)	
16:40-17:10	Computationally assisted exploration of metastable perovskite-type oxides exhibiting exotic magnetism <i>Shintaro Ishiwata (Osaka Univ., Japan)</i>
17:10-17:30	First-principles exploration of short-pitch skyrmion materials <i>Ryotaro Arita (RIKEN / Univ. of Tokyo, Japan)</i>
17:30-17:50	Multi- q spin texture in the hexagonal quantum magnet $\text{Yb}_3\text{Ru}_4\text{Al}_{12}$ <i>Taku J. Sato (Tohoku Univ., Japan)</i>

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Session 9 Chair: Tsuyoshi Kimura (Univ. of Tokyo, Japan)	
09:00-09:30	Imprinting optical spin texture into liquid crystals <i>Hirokazu Kobayashi (Kochi Univ. of Technology, Japan)</i>
09:30-09:50	Reentrant Antiferromagnetic Order in S=3/2 Square Magnet <i>Taka-hisa Arima (Univ. of Tokyo / RIKEN, Japan)</i>
09:50-10:10	Orbital-ordered phase and nematic phase in spinel vanadates <i>Takuro Katsufuji (Waseda Univ., Japan)</i>

Session 10 Chair: Taka-hisa Arima (Univ. of Tokyo / RIKEN, Japan)	
10:30-11:00	Chirality-induced spin polarization and enhanced x-ray circular dichroism in a collinear antiferromagnet <i>Atsushi Fujimori (National Tsing Hua Univ., Taiwan / Univ. of Tokyo, Japan)</i>
11:00-11:20	Manipulation of Crystallographic Chirality in Chiral and Ferroaxial Crystals <i>Tsuyoshi Kimura (Univ. of Tokyo, Japan)</i>
11:20-11:40	Chirality control and detection in metallic helimagnets <i>Yoshinori Onose (Tohoku Univ., Japan)</i>

11:40-11:55	Closing <i>Tsuyoshi Kimura, Co-Chair of QLC2023 (Univ. of Tokyo, Japan)</i>
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