

MAY 19 (SAT.), 2018

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Session 1, Chair : T. Kawarabayashi

12:50 – 13:20 Yasuhiro Hatsugai (Univ. Tsukuba)

“Bulk-edge correspondence & short range entangled states revisited [pdf:free]”

13:20 – 14:00 Akito Kimura (Hiroshima Univ.)

“Photo-induced Dirac surface states of topological insulators”

14:00 – 14:40 Satoshi Iwamoto (Univ. Tokyo)

“Utilizing valley degree of freedom in photonic and phononic crystals”

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14:40 – 14:45 Photo

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14:45 – 15:40 Coffee & Poster/discussion

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Session 2, Chair : A. Kimura

15:40 – 16:20 Jun Fujioka (Univ. Tsukuba)

“Anomalous magneto-transport property of correlated Dirac/Weyl electron in iridates”

16:20 – 16:50 Tomonari Mizoguchi (Univ. Tsukuba)

“Effect of boundary on hexamer classical spin liquid on a kagome lattice”

16:50 – 17:20 Tohru Kawarabayashi (Toho Univ.)

“Berry’s phase in a spin 1/2 XXZ model on anisotropic Kagome lattice”

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17:20 – 17:30 Short break

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Session 3, Chair : S. Nakajima

17:30 – 18:00 Koji Kudo (Univ. Tsukuba)

“Fractional quantum Hall effect of graphene and Chern number matrix [pdf:protected]”

18:00 – 18:30 Atsushi Kubo (Univ. Tsukuba)

“Applications of imaging techniques of surface plasmons to topological plasmonics”

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18:45 – 21:00 Workshop dinner (Univ. restaurant at HONBU-TOU)

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21:00 Shuttle bus to the hotel

MAY 20 (SUN.), 2018

8:10 Shuttle bus to the campus (OKURA FRONTIER HOTEL)

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Session 4, Chair : T. Fukui

8:30 – 9:10 Yoshiro Takahashi (Kyoto Univ.)

“Topological physics using ultracold atoms in an optical lattice [pdf:protected]”

9:10 – 9:40 Yosuke Takasu (Kyoto Univ.)

“Cold Atoms in Parity-Time-Symmetric Optical Lattices with non-Hermitian Hamiltonian [pdf:protected]”

9:40 – 10:10 Tsuneya Yoshida (Univ. Tsukuba)

“Topological properties of ultracold dipolar fermions in a one-dimensional optical lattice”

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10:10 – 11:10 Coffee & Poster/discussion/Core-member meeting (Rm.108)

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Session 5, Chair : Y. Takahashi

11:10 – 11:40 Ken-Ichiro Imura (Hiroshima Univ.)

“Higher-order topological insulators and protected corner states”

11:40 – 12:20 Shin Hayashi (AIST MathAM-OIL)

“Corner topological invariants and its variants [pdf:protected]”

12:20 – 12:50 Takahiro Fukui (Ibaraki Univ.)

“Entanglement polarization for the topological quadrupole phase”

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12:50 – 13:50 Lunch: (Lunch box)

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Session 6, Chair : K.-I. Imura

13:50 – 14:30 Tatsuhiko Misumi (Akita Univ.)

“Use of topology and anomaly to study phase diagram of QFT [pdf:protected]”

14:30 – 15:00 Toshikazu Kariyado (NIMS)

“Symmetry based topological indicator for correlated spin chains [pdf:protected]”

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15:00 – 15:10 Short break

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Session 7, Chair : S. Iwamoto

15:10 – 15:40 Tomoki Yoshikawa (Hiroshima Univ.)

“A surface photovoltage on a topological insulator [pdf:protected]”

15:40 – 16:10 Hideo Aoki (AIST, Univ. Tokyo)

“Graphene Landau level laser and edge states [pdf:protected]”

16:10 – 16:20 Y. Hatsugai (Univ. Tsukuba)

“Closing: Toward BEC2018X (Dec. 8-12, 2018)”

## POSTERS: (PRESENTERS)

- P 1.     Shuta Nakajima (Kyoto Univ.)  
           “Onset of interaction (and disorder) effects in topological Thouless pumping”
- P 2.     Yukinori Yoshimura (AIST MathAM-OIL)  
           “Topologically protected corner state and its shape dependence”
- P 3.     Yoshito Kuno (Kyoto Univ.)  
           “A cold-atom quantum simulator for one-dimensional Wilson-Dirac model”
- P 4.     Hiromu Araki (Univ. Tsukuba)  
           “Topological phase of the strained HgTe from the entanglement Hamiltonians”
- P 5.     Ingi Kim (Univ. Tokyo)  
           “Valley topological edge states of elastic waves using multiple complete phononic bandgaps”
- P 6.     Takuto Yamaguchi (Univ. Tokyo)  
           “Fabrication and characterization of slab-type valley photonic crystals with triangular-shaped air holes”
- P 7.     Wenbo Lin (Univ. Tokyo)  
           “Numerical analysis of spin-dependent directional emission from quantum dots embedded in an asymmetric waveguide”
- P 8.     Mao Hirasaka (Toho Univ.)  
           “Irrational charges in q-deformed fermion-vortex systems”
- P 9.     Shota Fubasami (Univ. Tsukuba)  
           “ $Z_2$  Topological order parameter of  $J_1$ - $J_2$  integer spin chains”
- P 10.    Takuma Isobe (Univ. Tsukuba)  
           “Bulk-edge correspondence of honeycomb photonic crystal”