This is a program for the virtual program

Due to the Coronavirus problems in Japan, it is our real regret to announce that we cancel the BE/BC2020F meeting and make it virtual only within the registered participants as of Feb.21, 2020.
(decided on Feb.24, 2020)

Program

International workshop
"Variety and universality of bulk-edge correspondence in topological phases:
From solid state physics to transdisciplinary concepts"
BE/BC2020F (Bulk-Edge/Boundary Correspondence)
February 28-29, 2020

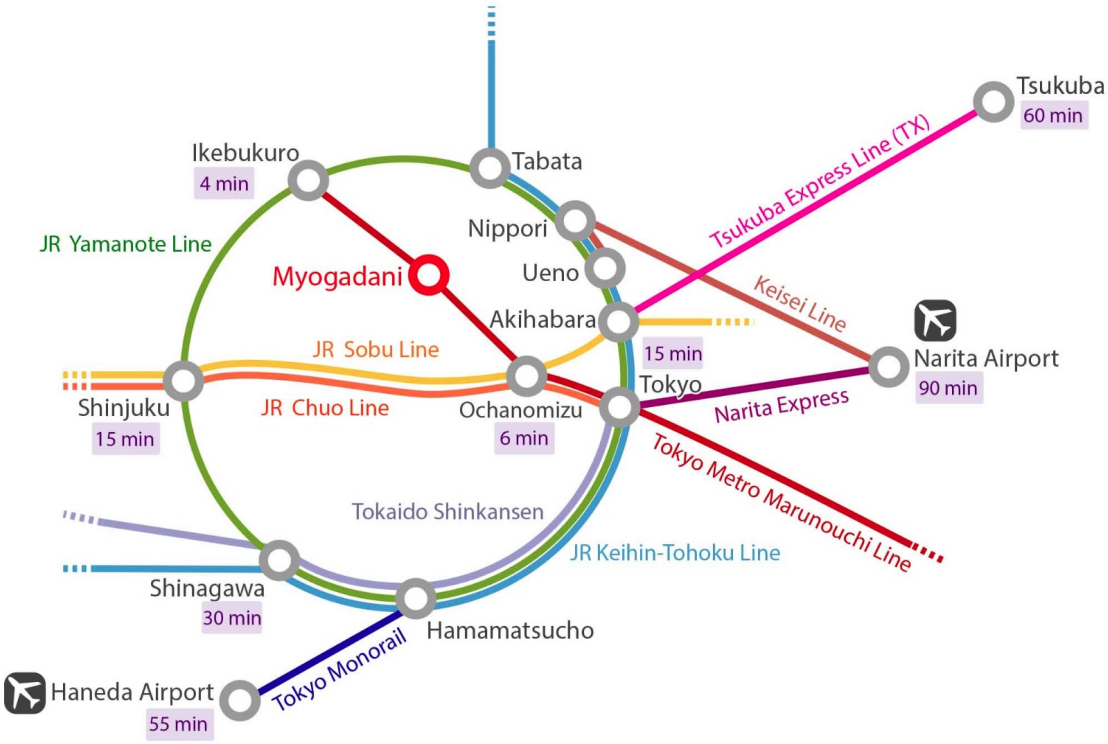
(as of March 10, 2020)

University of Tsukuba
Tokyo Campus, Myogadani, Tokyo

Scientific session
Oral session : Rm. 134
Poster session : Rm. 118 (Feb.28), Rm. 117 (Feb.29)

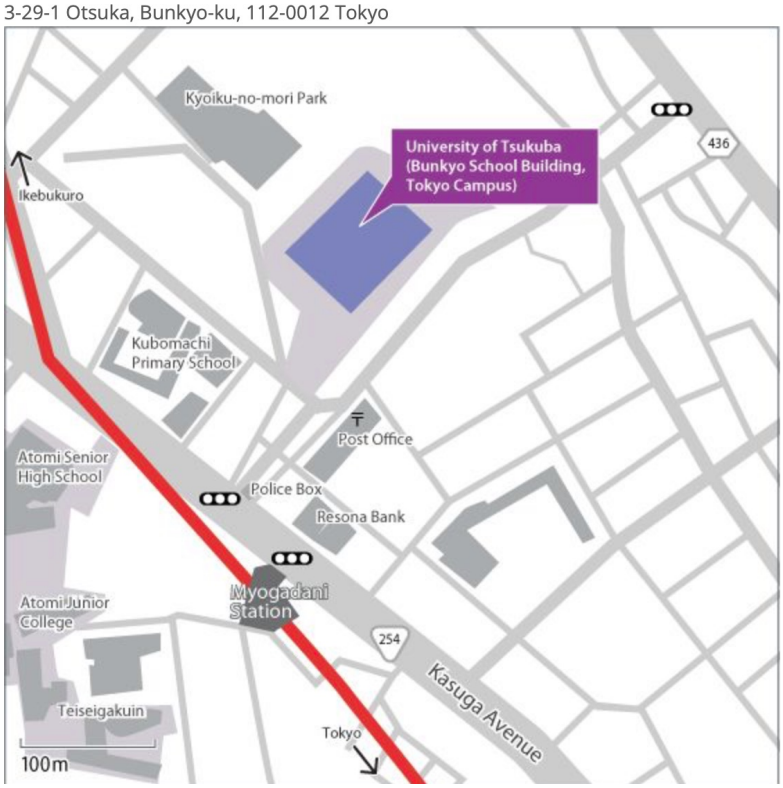
Access to Tokyo Campus / Route Map

Tokyo Metro Marunouchi Line: Myogadani Station (about five-minute walk)



Access Map

Address
3-29-1 Otsuka, Bunkyo-ku, 112-0012 Tokyo



FEB.28 (FRI.), 2020

8:20 Registration

Session 1, Chair: A. Kimura

8:40 – 9:00 Yasuhiro Hatsugai (Univ. of Tsukuba)

"Welcome: Towards Science of Bulk-Edge Correspondence (open access)"

9:00 – 9:25 Satoshi Iwamoto (Univ. of Tokyo)

"Light Propagation in Semiconductor Valley Photonic Crystals"

9:25 – 10:00 Xiao Hu (NIMS)

"Topological Bulk Laser"

10:00 – 10:35 Tomohiro Amemiya (Tokyo Inst. Tech.)

"Topological Silicon Photonics for Optical Vortex Control in Photonic Integrated Circuits"

10:35 – 10:55 Coffee

Session 2, Chair: T. Mizoguchi

10:55 – 11:30 Mikito Koshino (Osaka Univ.)

"Moire Phonons in Twisted Bilayer Graphene"

11:30 – 12:05 Yohei Fuji (Univ. of Tokyo)

"Coupled-Layer Construction of Anisotropic Fracton Models"

12:05 – 12:10 Photo

12:10 – 13:15 Lunch

Session 3, Chair: P. Delplace

13:15 – 14:15 Ching Hua Lee (National Univ. of Singapore)

"Physics of Non-Hermitian Bulk-Boundary Correspondence Breakdown"

14:15 – 14:40 Tsuneya Yoshida (Univ. of Tsukuba)

"Fractional Quantum Hall State in a Non-Hermitian System"

14:40 – 15:05 Hideo Aoki (AIST/Univ. of Tokyo)

"Imprinting Topological States with Superlattice-patterned Laser Fields in 2D Materials"

15:05 – 16:05 Coffee & Posters/discussion

(CONT.)

FEB.28 (FRI.), 2020 (CONT.)

Session 4, Chair: T. Kawarabayashi

16:05 – 16:30 Ryo Shimano (Univ. of Tokyo)

"THz Emission from Strong Spin-Orbit Coupling Materials"

16:30 – 17:05 Sota Kitamura (Univ. of Tokyo)

"Nonreciprocal Landau-Zener Tunneling"

17:05 – 17:30 Yoshihito Kuno (Kyoto Univ.)

"Topological Flat-Band Creutz Ladder: Many-Body Aharanov-Bohm Caging, Extended Flat-Band and Entanglement"

Dinner (private)

FEB.29 (SAT.), 2020

Session 5, Chair: C. H. Lee

8:40 – 9:40 Pierre Delplace (CNRS, ENS de Lyon)

"Topological Waves in the Atmosphere and the Ocean"

9:40 – 10:15 Kyogo Kawaguchi (RIKEN)

"Edge modes in chiral active nematic cells"

10:15 – 10:40 Coffee

Session 6, Chair: Y. Hatsugai

10:40 – 11:40 Jinkyu Yang (Univ. of Washington)

"Topological Manipulation of Stress Waves in Mechanical Structures"

11:40 – 12:05 Takahiro Fukui (Ibaraki Univ.)

"Boundary-Obstructed Topological Phases of the Benalcazar-Bernevig-Hughes Model in a Magnetic Field"

12:05 – 13:15 Lunch

Session 7, Chair: T. Fukui

13:15 – 13:40 Akio Kimura (Hiroshima Univ.)

"Incorporating Magnetism into Topological Materials"

13:40 – 14:15 Yutaka Akagi (Univ. of Tokyo)

"Topological Invariants for Magnon Systems with Disorder"

14:15 – 14:40 Mario Novak (University of Zagreb)

"ARPES Study of $EuIn_2As_2$ and $EuCd_2As_2$-Candidates for Magnetically Ordered Topological Materials"

14:40 – 15:40 Coffee & Posters/discussion

(CONT.)

FEB.29 (SAT.), 2020 (CONT.)

Session 8, Chair: S. Iwamoto

15:40 – 16:15 Nobuyuki Takei (Kyoto Univ.)

"Disorder-Induced Thouless Pumping of Ultracold Atoms in an Optical Lattice"

16:15 – 16:40 Kenichiro Imura (Hiroshima Univ.)

"Bloch Band Theory for Non-Hermitian Bulk-Edge Correspondence"

16:40 – 17:05 Tohru Kawarabayashi (Toho Univ.)

"Bulk-Edge Correspondence in Deformed Topologoical Systems"

17:05 – 17:10 Yasuhiro Hatsugai (Univ. of Tsukuba)

"Closing remark"

POSTERS

P 1.

Rasoul Ghadimi (Tokyo Univ. of Science)
"Possibility of s-Wave Chiral Topological Superconductivity in Quasicrystals"

P 2.

Hiroki Kondo (Univ. of Tokyo)
"Three-Dimensional Topological Magnon Systems"

P 3.

Gen Najima (Univ. of Tsukuba)
"Dynamics of Symmetry-Protected Exceptional Ring in Mechanical System"

P 4. Koji Kudo (Univ. of Tsukuba)
"Numerical Study of Adiabatic Heuristic for the Quantum Hall States"

P 5.

Hiromu Araki (Univ. of Tsukuba)
"Quantized Berry Phases for Characterization of the Higher-Order Symmetry-Protected Topological Phases"

P 6. Hiromasa Wakao (Univ. of Tsukuba)
"Chiral Zero Modes Protected by a Spatial Symmetry in a Spring-Mass Model"

P 7.

Motonobu Tomoda (Hokkaaido Univ.)
"Demonstration of Controlling Waves on a Wave Machine"

P 8.

Kenshi Okuno (Okayama Univ.)
"Design of Reconfigurable Valley Topological Phononic Structure using Metallic Circular Rods"

P 9.

Ken Mochizuki (Hokkaido Univ.)
"Chiral Floquet Topological Phases in One-Dimensional PT Symmetric Open Systems"

P 10.

Haruka Kurihara (Univ. of Tsukuba)
"Theoretical Study on Coexistence of Higher Order Topological Phase and Long Range Order"

(CONT.)

POSTERS (CONT.)

P 11.

Hibiki Kagami (Tokyo Inst. Tech.)
"Topological Taper Structure Towards Highly Efficient Coupling"

P 12. Yuria Otaki (Ibaraki Univ.)

"The 3D Higher Order Topological Insulator in the Uniform Magnetic Field"

P 13.

Yuki Soeda (Ibaraki Univ.)
"Wilson-Dirac fermion on the Lieb lattice"

P 14.

Kota Ishii (Toho Univ.)
"Berry's phase in quantum phases of a Kagome magnet"

P 15. Sho Okada (Tokyo Inst. Tech.)

"Optical vortex coupler/combiner using topological edge state waveguide"

P 16. Natsuko Ishida, Y. Ota, W. Lin,
Y. Arakawa, and S. Iwamoto (Univ. of Tokyo)

"Investigation on a single-mode array laser based on a topological edge state"

P 17. Kaito Shiraishi (Hiroshima Univ.)

"Angle resolved photoelectron spectroscopy of magnetically ordered topological insulator candidate $EuIn_2As_2$"

P 18. Hong Juang & Xiao Hu (NIMS, University of Tsukuba)

"Topological Magnon Modes Induced by Coupling Texture on Honeycomb Lattice"

P 19.

Nobuyuki Takei (Kyoto Univ.)
"Disorder-Induced Thouless Pumping of Ultracold Atoms in an Optical Lattice"

P 20. Koichi Asaga (Ibaraki Univ.)

"Boundary-obstructed topological phases of a Dirac fermion in a magnetic field"