

Program

December 17, 2014 (Wednesday)

09:30~10:00 Opening

- 09:30 Welcome Y. Maeno (10min)
09:40 17AM-0 Achievements of the TQP project Y. Maeno (20min)

10:00~10:40 Topology in Physics

Chair: J. Berlinsky

- 10:00 17AM-1 Topology in Physics G. Volovik (40min)

10:40~11:10 Refreshment Break

11:10~12:30 Chiral Superconductors and Superfluids

Chair: S. Kashiwaya

- 11:10 17AM-2 Evidence for Time Reversal Symmetry Breaking Superconductivity in UPt₃ E. Schemm (30min)
11:40 17AM-3 Direct Detection of Chirality in Superfluid ³He-A H. Ikegami (20min)
12:00 17AM-4 Topological superfluid ³He under engineered nanoscale confinement: new phases and the search for Majoranas J. Saunders (30min)

12:30~13:40 Lunch Break

13:30~16:00 Poster Session A

Chair: T. Nojima

- 13:30~14:30 Poster Preview A (1min for each poster, 50min)
14:30~16:00 Poster Session A (90min)

16:00~17:10 Topological Edge State

Chair: H. Fukuyama

- 16:00 17PM-1 Edge States, Edge Currents in Chiral Superfluids with Strong Anisotropy and Confinement J. Sauls (40min)
16:40 17PM-2 Spin-triplet superconductors: interface to ferromagnets and magnetic edge states M. Cuoco (30min)

17:10~17:40 Refreshment Break

17:40~18:50 Odd-Frequency Pairing

Chair: Y. Tanaka

- 17:40 17PM-3 In search of odd-frequency spin-triplet proximity effect in SrRuO₃/Sr₂RuO₄ hybrids M. S. Anwar (20min)
18:00 17PM-4 Magnetic property of odd-frequency Cooper pairs Y. Asano (20min)
18:20 17PM-5 Odd frequency condensates in correlated fermion and boson systems A. V. Balatsky (30min)

December 18, 2014 (Thursday)

09:20~10:40 Triplet Superconductivity I Chair: K. Miyake

- 09:20 18AM-1 Topological superconductivity based on topological insulators Y. Ando (30min)
- 09:50 18AM-2 NMR study of topological superconductors G. Zheng (30min)
- 10:20 18AM-3 Extra Magnetization in the Superconducting State of Sr_2RuO_4
Probed with ^{87}Sr and ^{99}Ru -NMR Measurements K. Ishida (20min)

10:40~11:10 Refreshment Break

11:10~12:20 Triplet Superconductivity II Chair: Y. Yanase

- 11:10 18AM-4 Order parameter nodal structure and symmetry in UPt_3 B. Halperin (30min)
- 11:40 18AM-5 Nodal structure and pairing symmetry of UPt_3 K. Izawa (20min)
- 12:00 18AM-6 Anomalous superconducting phase diagram of the chiral- p -wave
superconductor Sr_2RuO_4 S. Yonezawa (20min)

12:20~13:40 Lunch Break

13:40~16:00 Poster Session B Chair: H. Irie

- 13:40~14:30 Poster Preview B (1min for each poster, 50min)
- 14:30~16:00 Poster Session B (90min)

16:00~17:10 Dirac and Majorana Fermions Chair: T. Ando

- 16:00 18PM-1 Topological Transport in Graphene Y. Zhang (40min)
- 16:40 18PM-2 The wires' approach to topological insulators Y. Oreg (30min)

17:10~17:50 Topological Phase Transition Chair: A. Yamakage

- 17:10 18PM-3 Topological phase transitions in superfluids and superconductors
T. Mizushima (20min)
- 17:30 18PM-4 Magnetic Field Effects on the Surface Majorana Bound States of
Superfluid ^3He B-phase R. Nomura (20min)

December 19, 2014 (Friday)

09:20~10:30 Topological Devices Chair: Y. Asano

09:20 19AM-1 Quantized anomalous Hall effect in Cr-doped (BiSb)₂Te₃
topological insulator Q. Xue (40min)

10:00 19AM-2 Magneto-optical Kerr rotation from GeTe/Sb₂Te₃ topological
superlattice J. Tominaga (30min)

10:30~11:00 Refreshment Break

11:00~12:00 New Development in Sr₂RuO₄ Chair: J. Aarts

11:00 19AM-3 Search for half-flux-quantum Little-Parks oscillations in Sr₂RuO₄
Y. Liu (30min)

11:30 19AM-4 A novel method for using strain to tune correlated electron
materials C. Hicks(30min)

12:30~17:40 Excursion
Kyoto City Bus Tour

18:00~20:00 Banquet
Kyoto Univ. Clock Tower

December 20, 2014 (Saturday)

09:20~10:30 Novel Quantum Matter Chair: N. Kawakami

- 09:20 20AM-1 Controlled topological quantum physics using ultracold atoms
Y. Takahashi (40min)
- 10:00 20AM-2 Anomalous surface states in p -wave superconductors
A. Golubov (30min)

10:30~11:00 Refreshment Break

11:00~11:50 Chiral Superfluids Chair: M. Cuoco

- 11:00 20AM-3 Edge currents in Sr_2RuO_4 C. Kallin (30min)
- 11:30 20AM-4 Intrinsic Angular Momentum of Topological Superfluid $^3\text{He-A}$
O. Ishikawa (20min)

11:50~13:40 Lunch Break

13:40~15:10 Topological Insulators Chair: Y. Maeno

- 13:40 20PM-1 Quantum Hall effects and more in topological insulators
Y. Tokura (40min)
- 14:20 20PM-2 New Physics in Topological Crystalline Insulator L. Fu (30min)
- 14:50 20PM-3 Experimental Research on Topological Insulators
K. Segawa (20min)

15:10~15:40 Refreshment Break

15:40~17:10 Majorana Fermions Chair: M. Ueda

- 15:40 20PM-4 Symmetry in Topological Insulators and Superconductors
M. Sato (30min)
- 16:10 20PM-5 Topological phases with parity symmetry and orientifolds
S. Ryu (30min)
- 16:40 20PM-6 Weyl and Dirac fermions in solids N. Nagaosa (30min)

17:10~17:20 Closing