

Program

May 17, 2012 (Thursday)

09:00~09:30 Opening

- 09:00 Welcome Y. Tanaka (10min)
09:10 17AM-0 Introducing Topological Quantum Phenomena Project
Y. Maeno (20min)

09:30~10:50 Topological States: Chair M. Nakahara

- 09:30 17AM-1 Topology of Quantum Vacua G. Volovik (50min)
10:20 17AM-2 Recent Topics on Topological Superconductors
M. Sato (30min)

10:50~11:20 Refreshment Break

11:20~12:30 Chiral SC: chair N. Birge

- 11:20 17AM-3 Searching for Complex Order Parameters and Majorana Fermions in
Superconducting Materials and Josephson Devices
D. Van Harlingen (30min)
11:50 17AM-4 Chiral Edge States of Sr_2RuO_4 S. Kashiwaya (20min)
12:10 17AM-5 Anomalous Superconducting Transition of Sr_2RuO_4
Investigated by Magnetocaloric Effect S. Yonezawa (20min)

12:30~13:40 Lunch Break

13:40~15:30 Odd-parity/Odd-freq. pairs: Chair Y. Tanaka

- 13:40 17PM-1 Twofold Symmetry Breaking in the Gap Function of UPt_3
Probed by Thermal Conductivity K. Izawa (30min)
14:10 17PM-2 Odd-frequency Pairing in Superconducting Heterostructures
A. A. Golubov (30min)
14:40 17PM-3 Odd-frequency Pairing in Superfluid ^3He S. Higashitani (20min)
15:00 17PM-4 Odd-frequency Superconductivity: Stability and Ubiquitousness
K. Miyake (30min)

15:30~16:00 Refreshment Break

16:00~18:20 Poster Session A: Chair T. Nojima

- 16:00~16:50 Poster Preview A (1min for each poster, 50min)
16:50~18:20 Poster Session A (90min)

18:30~20:30 Administrative Committee Meeting

May 18, 2012 (Friday)

09:20~10:40 Topological Ins. / Topological SC: Chair N. Nagaosa

09:20 18AM-1 Topological Insulators and Superconductors: Materials Frontier
Y. Ando (50min)

10:10 18AM-2 From the Topological Invariants to the Edge States of
Topological Insulators V. Gurarie (30min)

10:40~11:10 Refreshment Break

11:10~12:20 TRS invariant: chair V. Gurarie

11:10 18AM-3 Classification of Topological Insulators and Superconductors:
Some Applications A. Furusaki (30min)

11:40 18AM-4 Surface Majorana Cone of the Topological Superfluid
 ^3He B Phase R. Nomura (20min)

12:00 18AM-5 Theory of Tunneling Spectroscopy in Superconducting
Topological Insulators A. Yamakage (20min)

12:30~17:40 Excursion

Higashiyama Zoo & Nagoya Castle

18:00~20:00 Banquet

Westin Nagoya Castle

May 19, 2012 (Saturday)

09:20~10:30 Majorana Fermion: Chair M. Ueda

- 09:20 19AM-1 Some Remarks about Majorana Fermions and Their Use in
Topological Quantum Computing A. Leggett (50min)
- 10:10 19AM-2 Symmetry Protected Topological Phase and Spin Susceptibility in
 $^3\text{He-B}$ K. Mizushima (20min)

10:30~11:00 Refreshment Break

11:00~12:20 S/F junctions: chair A. A. Golubov

- 11:00 19AM-3 Micron-ranged Supercurrents Induced in the Half-metallic
Ferromagnet CrO_2 J. Aarts (30min)
- 11:30 19AM-4 Spin-triplet Supercurrent in Ferromagnetic Josephson Junctions
N. Birge (30min)
- 12:00 19AM-5 Odd-frequency Cooper pairs in Spin-triplet Superconducting
Proximity Structures Y. Asano (20min)

12:20~14:30 Lunch Break

(Advisory Board meeting)

14:30~16:20 Chiral States: chair K. Nagai

- 14:30 19PM-1 Surface States and Edge Currents of Superfluid ^3He
in Confined Geometry J. Sauls (30min)
- 15:00 19PM-2 NMR Study on Mermin-Ho Texture in Rotating
Superfluid $^3\text{He-A}$ O. Ishikawa (30min)
- 15:30 19PM-3 NMR Investigation of the $\nu=5/2$ Fractional
Quantum Hall State K. Muraki (30min)
- 16:00 19PM-4 Proposal for Transporting and Braiding Edge
Majorana Fermions X. Hu (20min)

16:20~16:50 Refreshment Break

16:50~19:10 Poster Session B: Chair T. Shishidou

- 16:50~17:40 Poster Preview B (1min for each poster x 50, 50min)
- 17:40~19:10 Poster Session B (90min)

May 20, 2012 (Sunday)

09:00~10:10 Topological Ins. Topological SC: Chair G. Zheng

- 09:00 20AM-1 Topological Insulators and Superconductors S. Zhang (50min)
09:50 20AM-2 STM/STS Studies of Topological Insulators
under Magnetic Fields T. Hanaguri (20min)

10:10~10:40 Refreshment Break

10:40~12:00 Topological Excitation: chair K. Miyake

- 10:40 20AM-3 Topological Aspects in Ultracold Atomic Gases
M. Ueda (30min)
11:10 20AM-4 Single-site Resolved Detection and Manipulation of
Atoms in an Optical Lattice T. Fukuhara (20min)
11:40 20AM-5 Probing the Physics of the Fractional Vortex State in
Mesoscopic Rings of Sr_2RuO_4 R. Budakian (30min)

12:00~13:20 Lunch Break

13:20~14:50 Chiral SC/ NCS SC: chair Y. Inada

- 13:20 20PM-1 Novel States at Defects and Twin Boundaries in
Non-centrosymmetric Superconductors M. Sigrist (30min)
13:50 20PM-2 Novel Superconducting State in Non-centrosymmetric
Compounds $\text{Li}_2(\text{Pd}_{1-x}\text{Pt}_x)_3$ G. Zheng (20min)
14:10 20PM-3 Surface Superconductivity on SrTiO_3 : Depth and Crystal
Orientation Dependence K. Ueno (20min)
14:30 20PM-4 Probing the Direction of the Angular Momentum of
Cooper Pairs in Superfluid $^3\text{He-A}$ H. Ikegami (20min)

14:50~15:20 Refreshment Break

15:20~16:40 Topological States: Chair G. Volovik

- 15:20 20PM-5 Topological and Chiral Aspects of Graphene H. Aoki (30min)
15:50 20PM-6 Topological Chiral Edge Modes in Magnonic Crystals
S. Murakami (20min)
16:10 20PM-7 Theoretical Design of Topological Materials N. Nagaosa (30min)

16:40~17:00 Closing