

Program in Detail

January 10 Wednesday

- 09:00 - 17:00** Arrival
- 17:00 - 18:00** Registration (Kyoto Royal Hotel & Spa) (60)
- 18:00 - 20:00** Reception (Kyoto Royal Hotel & Spa) (120)

20min = 15 + 5min

30min = 23 + 7min

January 11 Thursday

- 09:20 - 09:40** **TMS, Logistics:** Introducing “Topological Materials Science”
Norio Kawakami (20)
- 09:40 - 09:50** **EPIQS:** Introducing Emergent Phenomena
in Quantum Systems Initiative (EPIQS) Dusan Pejakovic (10)
- 09:50 – 10:20** **Topology and Correlation (chair: Norio Kawakami)**
- 11A1 Novel Order, Topological Excitations and Spin Textures
in Frustrated Magnets Hikaru Kawamura (30)
- 10:20 – 10:50 Break (30)**
- 10:50 - 12:00** **Topological Materials (chair: Norio Kawakami)**
- 11A2 New Topological States of Matter: Weyl, Hopf-link, nodal-chain,
nodal-link and related topological materials Zahid Hasan (30)
- 11A3 Evidence for magnetic Weyl fermions in a correlated metal
Takeshi Kondo (20)
- 11A5 Spin Liquid and Deconfined Quantum Critical Point on Frustrated Lattices
Genke Xu (20)
- 12:00– 14:30 Lunch + Discussions (150)**
- 14:30 - 15:00** **Poster Previews (30) (chair: Masaki Tezuka)**
- 15:00 - 16:30** **Posters (with coffee) (90)**
- 16:30 - 17:30** **Topological Magnets (chair: Masaki Tezuka)**
- 11P1 Magnon in Quantum Hall Ferromagnets
Amir Yacoby (30)
- 11P2 Distinguishing Majorana Zero Mode in Atomic Chains & Inducing
Superconductivity in Chiral Edge States Ali Yazdani (30)
- 18:00 - 20:00** **Self-organized Dinner (120)**

January 12 Friday

09:00 - 10:30 Junctions (chair: Masahiro Haze)

- 12A1 Edge Josephson junction detection of topological chiral edge currents
in spin-triplet superconductor Sr_2RuO_4 with a calibrated sensitivity
Ying Liu (30)
- 12A2 New frontier for fractionalized electronic states
in graphene heterostructures
Andrea Young (20)
- 12P3 Josephson Junction on Magnetically-Doped Topological Insulator
Satoshi Kashiwaya (20)
- 12A4 Generic phase diagram for Weyl superconductivity
in mirror-symmetric superconductors
Takehito Yokoyama (20)

10:30 – 11:00 Break (30)

11:00 – 11:40 Textures (chair: Peter Armitage)

- 12A5 Dynamics of Spin Textures and Weyl Quasiparticles
in Superconductor-Magnet Heterostructures
Satoshi Fujimoto (20)
- 12A7 Interaction between magnetic skyrmions
Yuki Kawaguchi (20)

11:40 – 11:50 Group Photo

12:00 – 17:50 Excursion (with Lunch)

18:00 - 21:00 Information Exchange Dinner (Machiya restaurant MAO) (180)

January 13 Saturday

09:00 - 09:30 Kitaev QSL (chair: Yuichi Kasahara)

- 13A1 Quantum Spin Liquid in Kitaev Materials
Yong-Baek Kim (30)
- 13A2 Dynamical and transport properties in Kitaev spin liquids
Joji Nasu (20)
- 13A3 Magnetic thermal conductivity far above the Neel temperature
in the Kitaev-magnet candidate $\alpha\text{-RuCl}_3$
Yuki Shiomi (20)
- 13A4 Local and global magnetic response of Kitaev's spin liquids
Masafumi Udagawa (20)

10:30 – 11:00 Break (30)

11:00 - 12:00 Magnetic Majorana (chair: Yong-Baek Kim)

- 13A5 Quantum Liquid and Phase Diagram of Honeycomb
and Hyperhoneycomb Iridates
Kentaro Kitagawa (20)
- 13A6 Time-domain terahertz probes of RuCl_3
Joseph Orenstein (20)
- 13A7 Critical excitation spectra of a 1D ferromagnetic Ising chain in transverse
magnetic field
Peter Armitage (20)

12:00– 14:30 Lunch + Discussions (150)

14:30 - 16:00 Topological Magnets (chair: Joseph Orenstein)

- 13P1 Experimental tests of the chiral anomaly magnetoresistance
in Dirac-Weyl semimetals Phuan Ong (30)
- 13P2 Anomalous magneto-transport property in pyrochlore iridates
with Mott criticality Jun Fujioka (20)
- 13P3 Singular angular magnetoresistance in a nonsymmorphic magnet(tentative)
Lucile Savary (20)
- 13P4 Anomalous Magnetotransport and Magnetization Dynamics
in Magnetic Weyl Semimetals Kentaro Nomura (20)

16:30 – 17:30 Break (30)

16:30 - 17:30 Breakout Discussion 1

(Topological Magnets) (60) (chair: Checkelsky, Matsuda)

17:30 - 17:40 Poster Award (10)

18:00 - 20:00 Self-organized Dinner (120)

January 14 Sunday

09:00 - 09:30 Superconductivity (chair: Shingo Yonezawa)

- 14A1 Dirac Electrons on the Kagome Lattice
Joe Checkelsky (30)
- 14A2 Topological superconducting states revealed by NMR
Guo-qing Zheng (20)
- 14A3 Topological superconductivity in heavy fermions
Youichi Yanase (20)
- 14A3 Spontaneous time-reversal breaking and topologically protected gapless
states in unconventional nano superconductors Yuki Nagai (20)

10:30 – 11:00 Break (30)

11:00 - 12:00 Breakout Discussion 2

(Topological Superconductors) (60) (chair: Maeno, Yacoby)

12:00– 13:30 Lunch + Discussions (90)

13:30 - 14:30 Spin Liquids (chair: Joe Checkelsky)

- 14P1 Majorana quantization and half integer quantum thermal Hall conductance
in a Kitaev spin liquid state Yuji Matsuda (30)
- 14P2 Spin-orbit Mott insulators: from Kitaev model to Higgs mode
Giniyat Khaliullin (30)

14:30 – 14:40 Closing

14:40 - departure