



Workshop Program

Siemens Auditorium - ETH Hönggerberg HIT E51

Monday

8:50 - 9:00	Opening
9:00-11:40	Non-equilibrium and Floquet systems chair: Mark Fischer
09:00-9:30	Dmitry Abanin <i>Influence matrix approach to many-body dynamics and quantum impurity models</i>
09:30 - 10:00	Hiroshi Shinaoka <i>Multiscale space-time ansatz for response functions of quantum systems</i>
10:00 - 10:30	Coffee break
10:30- 11:00	Norio Kawakami <i>Fate of Topological Edge States in Nonunitary/Nonlinear Floquet Systems</i>
11:00-11:20	Rui Lin <i>Dissipation-engineered family of nearly dark states in many-body cavity-atom systems</i>
11:20-11:40	Kazuki Yamamoto <i>Universal properties of dissipative Tomonaga-Luttinger liquids with and without internal symmetry</i>
11:40-14:00	Lunch break / Posters & Discussion
14:00-15:00	Time dependent systems chair: Frederic Mila
14:00-14:30	Hirokazu Tsunetsugu <i>Triple-q partial orders of electric quadrupoles in correlated materials</i>
14:30-15:00	Philipp Werner <i>Nonthermal electronic orders</i>
15:00-15:30	Coffee break
15:30-16:50	Topological systems
15:30-15:50	Ömer Aksoy <i>Elementary derivation of the stacking rules of invertible fermionic topological phases in one dimension</i>
15:50-16:10	Keita Omiya <i>Hidden projector embedding in the Affleck-Kennedy-Lieb-Tasaki model and the PXP model</i>
16:10-16:30	Martina Soldini <i>Building crystalline topological superconductors from Shiba lattices</i>
16:30-16:50	Loïc Herviou <i>Possible restoration of particle-hole symmetry in the 5/2 Quantized Hall State at small magnetic field</i>
16:50-19:00	Poster Session & Discussion

Tuesday

9:00-11:40 Quantum Spin Systems and Correlated Electron Systems

chair: Markus Müller

9:00-9:30 Christoph Bruder
Quantum synchronization

9:30-10:00 Shin Miyahara
Theory of absorption in the frustrated 2D spin system $\text{SrCu}_2(\text{BO}_3)_2$

10:00-10:30 Coffee break

10:30-11:00 Shintaro Hoshino
Spin-orbital dynamics of localized electrons

11:00-11:20 Olivier Gauthé
Thermal Ising Transition in the Spin-1/2 J_1 - J_2 Heisenberg Model

11:20-11:40 Johannes Motruk
Kagome chiral spin liquid in transition metal dichalcogenide moiré bilayers

11:40-14:00 Lunch break / Posters & Discussion

14:00-16:40 Superconductivity

chair: Titus Neupert

14:00-14:30 Aline Ramires
Nonunitary Superconductivity in Complex Quantum Materials

14:30-15:00 Hikaru Watanabe
Nonreciprocal property and resultant optical response of superconductors

15:00-15:30 Coffee break

15:30-16:00 Naoto Tsuji
Nonlinear terahertz spectroscopy of superconductors: Higgs mode and beyond

16:00-16:20 Kosuke Nogaki
Topological strongly correlated superconductor CeRh_2As_2

16:20-16:40 Rikuto Oiwa
Phonon-Mediated Spin-Triplet Superconductivity in Chiral Crystals

16:40-18:30 Poster Session & Discussion

18:30-21:00 Banquet

Wednesday

9:00-10:10 **Multiferroics**

chair: Nicola Spaldin

9:00-9:30 Hiroaki Kusunose

Microscopic investigation of chiral crystals

9:30-9:50 Tomoki Hirose

Magnetolectric Cavity Magnonics in Skyrmion Crystals

9:50-10:10 Sayantika Bhowal

Magnetolectric classification of Skyrmions

10:10-10:40 Coffee break

10:40-12:00 **Topological systems**

10:40-11:10 Yasuhiro Hatsugai

Topological pump of correlated systems

11:10-11:40 Akira Furusaki

Topology of gapless and gapped phases of quantum many-body systems

11:40-12:00 Masataka Kawano

Sine-square deformed mean-field theory

12:00-14:00 Lunch break / Posters & Discussion

14:00-15:50 **2D and multilayered Systems**

chair: Christopher Mudry

14:00-14:20 Yifei Guan

Electronic transport in graphene with out-of-plane disorder

14:20-14:40 Glenn Wagner

Skyrmions in twisted bilayer graphene

14:40-15:00 Ikuma Tateishi

Theoretical study of twisted bilayer $\text{Bi}_2(\text{Te}, \text{Se})_3$

15:00-15:20 Changming Yue

Doping asymmetry and layer-selective metal-insulator transition in trilayer $\text{K}_{3+x}\text{C}_{60}$

15:20-15:50 Masaki Oshikawa

Unified framework on conductivities as a response to the time-dependent gauge field

15:50

Closing