

Day 1 - 19/05/2025	
9:00-9:15	Opening
<i>Superconductivity I</i>	
9:15-9:50	<i>Superconductivity in moiré quantum matter</i> Pablo Jarillo-Herrero, MIT
9:50-10:25	<i>Equivalence of pseudogap and pairing energy in a cuprate high-temperature superconductor</i> Jiasen Niu, Leiden University and University of Munich (LMU)
10:25-11:00	<i>Vortex state in superconductors, optics perspective</i> Girsh Blumberg, Rutgers University
11:00-11:15	Coffee break
11:15-11:50	<i>Coulomb pseudopotential: How multiple mistakes cancel out</i> Nikolay Prokofiev , University of Massachussetts Amherst
11:50-12:25	<i>Small Fermi energy and necklace vortex pattern in an iron based superconductor</i> Hai-Hu Wen, Nanjing University
12:25-14:15	Lunch
<i>Superconductivity II</i>	
14:15-14:50	<i>Chiral and nematic d-wave superconductivity in twisted bilayer graphene</i> Annica Black-Schaffer, Uppsala University
14:50-15:25	<i>Quasiparticle Berry curvature induced spectroscopic properties in a topological superconductor</i> Yunxiang Liao, KTH Royal Institute of Technology
15:25-15:40	Coffee Break

Day 2 - 20/05/2025	
<i>Quadrupling order in electronic materials I</i>	
9:00-9:50	<i>Pedagogical intro talk reviewing quadrupling theories in electronic systems</i> Egor Babaev, KTH Royal Institute of Technology
9:50-10:25	<i>Signatures of broken time-reversal symmetry in conventional transport properties</i> Federico Caglieris, CNR-SPIN Genova
10:25-10:40	Coffee Break
10:40-11:15	<i>Magnetic Imaging Chiral Superconductors and Un-quantized Vortex</i> Yusuke Iguchi, Stanford University
11:15-11:50	<i>Skyrmions in the resistive electron quadrupling condensate</i> Julien Garaud, University of Tours
11:50-12:25	<i>Vestigial phases (or not) in superconductors and superfluids with multi-dimensional order parameter</i> Sungkit Yip, Institute of Physics, Academia Sinica
12:25-13:45	Lunch
13:45-14:20	<i>^{75}As NMR investigations of the quartic-metal phase in $\text{Ba}(1-x)\text{K}(x)\text{Fe}_2\text{As}_2$</i> Florian Bärtl, Technische Universität Dresden
14:20-14:55	<i>A theory of the electron quadrupling state</i> Albert Samoilenska, KTH Royal Institute of Technology
14:55-15:30	<i>Chiral currents at zero magnetic field in some two-dimensional superconductors</i> Chandra Varma, University of California
15:30-15:45	Coffee Break
15:45-16:20	<i>Uniform composite orders from antiferromagnetism</i> Daniel Agterberg, University of Wisconsin
16:20-16:55	<i>Intervalley dark excitonic condensate</i> Anatoly Kuklov, CUNY Graduate Center
16:55-17:45	<i>Summary and discussion of the experimental results on the $\text{Ba}_{1-x}\text{K}_x\text{Fe}_2\text{As}_2$ system with BTRS superconductivity and quadrupling condensates</i> Vadim Grinenko, Tsung-Dao Lee Institute
From 18:15	Reception at Proviant

Day 3 - 21/05/2025	
<i>Quadrupling order in electronic materials II, in artificial and other systems II</i>	
9:00-9:35	<i>BKT Transitions in Josephson Arrays</i> Charles Marcus, University of Washington
9:35-10:10	<i>Discovery of higher charge superconductivity beyond charge-2e Cooper pairs</i> Jian Wang, Peking University
10:10-10:45	<i>d-wave charge-4e superconductivity from fluctuating pair density waves</i> Yuxuan Wang , University of Florida
10:45-11:00	Coffee Break
<i>Bosonic pairing and composite order in bosonic systems</i>	
11:00-11:50	<i>General pedagogical intro in the field</i> Boris Svistunov, University of Massachusetts, Amherst
11:50-12:25	<i>Counterflow superfluidity in a two-component Mott insulator of ultracold atoms</i> Zhen-Shen Yuan, University of Science and Technology of China
12:25-14:00	Lunch
14:00-14:35	<i>Observation of single-quantum vortex splitting in the $Ba_{1-x}K_xFe_2As_2$ superconductor</i> Yihua Wang, Fudan University
14:35-15:10	<i>Direct observation of quantum vortex fractionalization in multiband superconductors</i> Quanxin Hu, Chinese Academy of Sciences
15:10-15:25	Coffee Break
<i>Superconductivity in multicomponent materials</i>	
15:25-16:00	<i>ARPES Study of Hole Overdoped $Ba(1-x)K(x)Fe_2As_2$</i> Elena Corbae, Stanford University
16:00-16:35	<i>Phase-sensitive tunneling into iron-pnictides</i> Vladimir Krasnov, Stockholm University
16:35-17:10	<i>Exotic pairing states in FeSe-based superconductors</i> Takasada Shibauchi, University of Tokyo
17:10-17:45	<i>Possible unconventional surface superconductivity in YPtBi</i> Eylon Persky, Stanford University

Day 4 - 22/05/2025	
	<i>Other condensates and superconductors I</i>
9:00-9:35	<i>μSR and ultrasound spectroscopy on time-reversal symmetry-breaking superconductors - Sr₂ RuO₄ and 4H-TaS₂</i> Hans-Henning Klauss, Technische Universität Dresden
9:35-10:10	<i>Orbital FFLO states in an Ising superconductor</i> Noah Yuan, Shanghai Jiao Tong University
10:10-10:45	<i>Tractable models of Pair Density Waves</i> Alexei Tsvelik, Brookhaven National Laboratory
10:45-11:00	Coffee Break
11:00-11:35	<i>Improper orders in nonsymmorphic systems</i> Aline Ramires , TU Wien
11:35-12:10	<i>Fluctuating Nodal Superconductivity in PtBi₂</i> Bernd Büchner, IFW Dresden
12:10-13:40	Lunch
13:40-14:15	<i>Two-Component Superconductivity in 4Hb-TaS₂</i> Amit Kanigel, Technion
14:15-14:50	<i>Imaging Quantum materials</i> Beena Kalisky, Bar-Ilan University
14:50-15:25	<i>New progress in the Iron-Majorana platform</i> Quanxin Hu, Chinese Academy of Sciences
15:25-15:40	Coffee Break
15:40-16:15	<i>The breakdown of superconductivity in quantum materials</i> Milan Allan, Leiden University
16:15-16:50	<i>Imaging quantum oscillations and quantum criticality in graphene</i> Haibiao Zhou, Shanghai Jiao Tong University

Day 5 - 23/05/2025	
<i>Other condensates, quadrupling order, and superconductors II</i>	
9:00-9:35	<i>Superconductivity in flat-band materials</i> Alexander Zyuzin, Aalto University
9:35-10:10	<i>Superconducting instabilities in bilayer nickelates: Dirac nodes and orbital anti-phase unconventional Cooper-pairing</i> Ilya Eremin, Ruhr University Bochum
10:10-10:45	Paradigm for Finding d-Electron Heavy Fermions: The Case of Cr-doped CsFe₂As₂ <i>Luca De' Medici, ESPCI Paris</i>
10:45-11:00	Coffee Break
11:00-11:35	<i>Infinitely Stable Disordered Systems on Emergent Fractal Structures</i> Andrew Yuan, University of Maryland
11:35-12:10	<i>Composite (multi)ferroic order</i> Mattias Geilhufe, Chalmers University of Technology
12:10-14:00	Lunch
14:00-14:35	<i>Charge-4e superconductivity in a Hubbard model</i> Martina Ondina Soldini, University of Zürich
14:35-15:10	<i>Cooper quartets in interacting hybrid superconducting systems</i> Luca Chirolli, Università di Firenze
15:10-15:45	<i>Cavity quantum materials - the power of vacuum quantum fluctuations</i> Qing-Dong Jiang, Shanghai Jiao Tong University
15:45-16:00	Coffee Break
16:00-16:35	<i>Specific heat in quantum critical systems: Multi-flavor criticality and Kramers doublets</i> Andreas Rydh, Stockholm University