

Parallel Session: Condensed Matter Physics

Meeting Room A

Meeting Room A

CMP - A	Oct 20	Oct 21	Oct 22	Oct 23	Oct 24
Chair	Plenary Session				Hanghui Chen
09:00-09:25					Zhuoyu Chen
09:25-09:40					Motofumi Noda
09:40-10:05					Xiaohu Zheng
10:05-10:20					King Yau Yip
10:20-10:50	Break				
Chair	Plenary Session	Jie Shen	Jinguang Cheng	No CMP	Plenary Session
10:50-11:15		Huan Yang	Dai Aoki		
11:15-11:30		Gang Xu	Qing Li		
11:30-11:45		Shuo Yang	Yongkang Luo		
11:45-12:10		Tuson Park	Guoqing Zheng		
12:10-14:00	Lunch				
13:00-14:00	Poster				Departure
Chair	Kee Hoon Kim	No CMP	Yusuke Nomura	Yanwu Xie	
14:00-14:25	Xianhui Chen		Keun Su Kim	Hongjun Gao	
14:25-14:50	Meng Wang		Daoxin Yao	Canli Song	
14:50-15:05	Yaomin Dai		Peng Li	Zhesen Yang	
15:05-15:30	Kazuhiko Kuroki		Jun Zhao	Hong Yao	
15:30-16:00	Break				
Chair	Kazuhiko Kuroki	No CMP	Jun Zhao	Hiroyuki Nojiri	
16:00-17:50	Jian Wang 16:00-16:25		Donglai Feng 16:00-16:25	Yu-Te Hsu 16:00-16:20	
	Kui Jin 16:25-16:50		Jinguang Cheng 16:25-16:50	Mingu Kang 16:20-16:40	
	Kee Hoon Kim 16:50-17:15		Yusuke Nomura 16:50-17:15	Duc Anh Phan 16:40-17:10	
	Tian Le 17:15-17:30		Hanghui Chen 17:15-17:30	Hoi Chun Po 17:10-17:30	
	Jie Shen 17:30-17:45		Yanwu Xie 17:30-17:45	Weiyao Zhao 17:30-17:50	

Parallel Session: Condensed Matter Physics

Meeting Room B

CMP - B	Oct 20	Oct 21	Oct 22	Oct 23	Oct 24
Chair	Plenary Session				Qing-Dong Jiang
09:00-09:25					Dongchen Qi
09:25-09:40					Yantao Wu
09:40-10:05					Yidun Wan
10:05-10:20					Vladimir Bubanja
10:20-10:50	Break				
Chair	Plenary Session	Yukako Fujishiro	Rui Zhou	No CMP	Plenary Session
10:50-11:15		Jun Sung Kim	Wei Li		
11:15-11:30		Peng Cheng	Yixuan Huang		
11:30-11:45		Katsumi Tanigaki	Tingyu Gao		
11:45-12:10		Satoru Hayami	Weiqliang Yu		
12:10-14:00	Lunch				
13:00-14:00	Poster				Departure
Chair	Jong Seok Lee	No CMP	Wei Li	Yantao Wu	
14:00-14:25	Yukako Fujishiro		Junxiong Hu	Vic K. T. Law	
14:25-14:50	Kai-Xuan Zhang		Zhengcheng Gu	Youichi Yanase	
14:50-15:05	Anirban Kundu		Mingpu Qin	Qing-Dong Jiang	
15:05-15:35	Ji-Hee Kim 15:05-15:30		Wenge Yang 15:05-15:30	Yuan Yao 15:05-15:20	
				Guancong Ma 15:20-15:35	
15:35-16:00	Break				
Chair	Anirban Kundu	No CMP	Wenge Yang	Youichi Yanase	
16:00-16:25	Lin He		Rui Zhou	Haifeng Du	
16:25-16:50	Hongyun Zhang		Mathias Klæui	Yutaka Akagi	
16:50-17:45	Jong Seok Lee 16:50-17:15		Swee K. Goh 16:50-17:15	Nakhyeon Choi 16:50-17:05	
	Wei Yang 17:15-17:30		Xinchao Huang 17:15-17:30	Yanhao Tang 17:05-17:20	
	Kaihui Liu 17:30-17:45		Hiroyuki Nojiri 17:30-17:45	Hiro Ishizuka 17:20-17:35	

Parallel Session: Condensed Matter Physics

Date: October 20 (Meeting Room A)

chair	Kee Hoon Kim	
14:00-14:25	Xianhui Chen University of Science and Technology of China	Superconductivity and density wave transition in Ruddlesden-Popper phase nickelates
14:25-14:50	Meng Wang Sun Yat-sen University	Doping effects on structural transition and superconductivity in bilayer nickelate
14:50-15:05	Yaomin Dai Nanjing University	Evolution of electronic correlations in the Ruddlesden-Popper nickelates
15:05-15:30	Kazuhiko Kuroki Osaka University	Theoretical study on high temperature superconductivity in a bilayer nickelate $\text{La}_3\text{Ni}_2\text{O}_7$ and related materials
15:30-16:00	Break	
chair	Kazuhiko Kuroki	
16:00-16:25	Jian Wang Peking University	High-temperature field-free superconducting diode effect in high- T_c cuprates
16:25-16:50	Kui Jin Institute of Physics, CAS	Enhanced superconductivity in FeSe and the physics behind it
16:50-17:15	Kee Hoon Kim Seoul National University	Signature of unconventional superconductivity in kagome metal $\text{Cs}(\text{V},\text{Ti})_3\text{Sb}_5$
17:15-17:30	Tian Le Zhejiang University	Superconducting interference patterns, zero-field diode effects and intrinsic Josephson effects in kagome CsV_3Sb_5
17:30-17:45	Jie Shen Institute of Physics, CAS	Superconducting Diode Effect and Kitaev Chain based on Hybrid Superconductor-nanowire System

Parallel Session: Condensed Matter Physics

Date: October 20 (Meeting Room B)

chair	Jong Seok Lee	
14:00-14:25	Yukako Fujishiro RIKEN	Topological phase transitions in cubic chiral magnets explored under extreme conditions
14:25-14:50	Kai-Xuan Zhang Seoul National University	Purely electrical control of vdW ferromagnet Fe_3GeTe_2 and helical antiferromagnet $\text{Ni}_{1/3}\text{NbS}_2$
14:50-15:05	Anirban Kundu Asia Pacific Center for Theoretical Physics	Dzyaloshinskii–Moriya interaction mediated by 2D electron gas in altermagnets
15:05-15:30	Ji-Hee Kim Pusan National University	Hot carrier diffusion and extraction in 2D materials
15:30-16:00	Break	
chair	Anirban Kundu	
16:00-16:25	Lin He Beijing Normal University	STM characterization of flat bands in 2D systems
16:25-16:50	Hongyun Zhang Tsinghua University	Flat band engineering in twisted & stacked graphene/graphite
16:50-17:15	Jong Seok Lee GIST	Demagnetization and depolarization dynamics in oxide heterostructures
17:15-17:30	Wei Yang Institute of Physics, CAS	Observation of Integer and Fractional Chern insulators in high Chern number flatbands
17:30-17:45	Kaihui Liu Peking University	Optical crystals of 2D materials

Parallel Session: Condensed Matter Physics

Date: October 21 (Meeting Room A)

chair	Jie Shen	
10:50-11:15	Huan Yang Nanjing University	Shallow band and vortex bound states in iron-based superconductors
11:15-11:30	Gang Xu Huazhong University of Science and Technology	How to design topological superconductivity from ab initio calculations
11:30-11:45	Shuo Yang Tsinghua University	Unveiling Stripe-shaped Charge Density Modulations in Doped Mott Insulators
11:45-12:10	Tuson Park Sungkyunkwan University	TBA

Date: October 21 (Meeting Room B)

chair	Yukako Fujishiro	
10:50-11:15	Jun Sung Kim Pohang University of Science and Technology	Novel angular magneto-transport properties of low-dimensional topological magnets
11:15-11:30	Peng Cheng Renmin University of China	FePd ₂ Te ₂ : a newly discovered 2D magnet with novel structures and physical properties
11:30-11:45	Katsumi Tanigaki Beijing Academy of Quantum Information Sciences	Intercorrelations among magnon, electron and phonon of antiferromagnetic itinerant BaMn ₂ Pn ₂ (Pn:As, Sb, Bi) with PT symmetry
11:45-12:10	Satoru Hayami Hokkaido University	Stabilization mechanisms of topological spin textures in itinerant magnets

Parallel Session: Condensed Matter Physics

Date: October 22 (Meeting Room A)

chair	Jinguang Cheng	
10:50-11:15	Dai Aoki Tohoku University	Spin-triplet superconductivity and field-induced phenomena in UTe_2
11:15-11:30	Qing Li Nanjing University	Unconventional superconductivity emerging along with the strange-metal behavior in UAs_2 under pressure
11:30-11:45	Yongkang Luo Huazhong University of Science and Technology	Constraints on the superconducting order parameter of pressurized UTe_2 from point-contact spectroscopy
11:45-12:10	Guoqing Zheng Okayama University	Multiple phases in spin-triplet superconductors $\text{Cu}_x\text{Bi}_2\text{Se}_3$ and $\text{K}_2\text{Cr}_3\text{As}_3$
12:10-14:00	Lunch	
chair	Yusuke Nomura	
14:00-14:25	Keun Su Kim Yonsei University	Pseudogap and rotonic dispersion in a doped layered insulator
14:25-14:50	Daoxin Yao Sun Yat-sen University	Multi-orbital models and superconductivity of $\text{La}_3\text{Ni}_2\text{O}_7$ thin films
14:50-15:05	Peng Li Quantum Science Center of Guangdong-Hongkong-Macao Greater Bay Area	Angle-resolved photoemission spectroscopy of superconducting $(\text{La},\text{Pr})_3\text{Ni}_2\text{O}_7/\text{SrLaAlO}_4$ heterostructures
15:05-15:30	Jun Zhao Fudan University	Magnetic correlations and superconductivity in trilayer and bilayer nickelates
15:30-16:00	Break	
chair	Jun Zhao	
16:00-16:25	Donglai Feng ShanghaiTech University	Resolving the Electronic Structure of Infinite-Layer Nickelates by Angle-Resolved Photoemission
16:25-16:50	Jinguang Cheng Institute of Physics, CAS	Pressure driven high- T_c superconductivity in the infinite-layer and Ruddlesden-Popper bilayer nickelates
16:50-17:15	Yusuke Nomura Tohoku University	Strong-coupling high-temperature superconductivity emerging from correlated band insulator
17:15-17:30	Hanghui Chen NYU Shanghai	Ab initio many-body calculations of nickelate superconductors
17:30-17:45	Yanwu Xie Zhejiang University	Interfacial Coexistence of Superconductivity and Ferroelectricity in Oxide Heterostructures

Parallel Session: Condensed Matter Physics

Date: October 22 (Meeting Room B)

chair	Rui Zhou	
10:50-11:15	Wei Li Institute of Theoretical Physics, CAS	Spin Supersolid on a Triangular Lattice: Spin Dynamics, Giant Magnetocalorics, and Spin Supercurrent
11:15-11:30	Yixuan Huang RIKEN	Dissipationless dynamics of spin supersolid states in a spin-1/2 triangular antiferromagnet with impurities
11:30-11:45	Tingyu Gao Hainan Micro-City Future School	A Systematic Construction of the Kalmeyer–Laughlin Chiral Spin Liquid in Lattice Models
11:45-12:10	Weiqiang Yu Renmin University of China	Field-Induced Quantum Phase Transitions and Quantum Criticality in Low-Dimensional Magnetic Materials
12:10-14:00	Lunch	
chair	Wei Li	
14:00-14:25	Junxiong Hu University of Electronic Science and Technology of China	Emergent phenomena in graphene supermoiré lattice
14:25-14:50	Zhengcheng Gu The Chinese University of Hong Kong	Classification and construction of crystalline topological superconductors and insulators in interacting fermion systems
14:50-15:05	Mingpu Qin Shanghai Jiao Tong University	Augmenting Density Matrix Renormalization Group with Clifford Circuits
15:05-15:30	Wenge Yang Center for High Pressure Science and Technology Advanced Research	Enhanced Ising superconductivity in a unicompositional bulk 4Hb-TaS ₂ superlattice via pressure
15:30-16:00	Break	
chair	Wenge Yang	
16:00-16:25	Rui Zhou Institute of Physics, CAS	Synergetic Extreme Condition User Facility: A New 'Playground' for Condensed Matters
16:25-16:50	Mathias Klaeui Johannes Gutenberg University Mainz	Topological Spin-orbitronics
16:50-17:15	Swee K. Goh The Chinese University of Hong Kong	Fermi surface of vanadium-based kagome metals under hydrostatic pressure via quantum oscillations
17:15-17:30	Xinchao Huang European XFEL	High photon energy X-ray absorption and emission spectrometers at FXE instrument of European XFEL
17:30-17:45	Hiroyuki Nojiri Tohoku University	Compact Pulsed Magnetic Field for Quantum Beam Experiments

Parallel Session: Condensed Matter Physics

Date: October 23 (Meeting Room A)

chair	Yanwu Xie	
14:00-14:25	Hongjun Gao Institute of Physics, CAS	TBA
14:25-14:50	Canli Song Tsinghua University	Atomic-scale engineering and emergent electronic orders in $\text{Ba}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$ films
14:50-15:05	Zhesen Yang Xiamen University	Complex frequency fingerprint
15:05-15:30	Hong Yao Tsinghua University	PDW superconductivity
15:30-16:00	Break	
chair	Hiroyuki Nojiri	
16:00-16:20	Yu-Te Hsu National Tsing Hua University	To superconduct or not to superconduct: lessons learnt from three correlated oxides (DCMP Award)
16:20-16:40	Mingu Kang Seoul National University	Three different charge orders in kagome lattice materials (DCMP Award)
16:40-17:10	Duc Anh Phan Phenikaa University	Development of the ECNLE Theory for the Glass Transition in Bulk and Confined Systems (DCMP Award)
17:10-17:30	Hoi Chun Po Hong Kong University of Science and Technology	Tensor network representations of a Chern insulator and entanglement renormalization of its chiral edge (DCMP Award)
17:30-17:50	Weiyao Zhao Monash University	Room temperature quantum geometry effect in TbMn_6Sn_6 (DCMP Award)

Parallel Session: Condensed Matter Physics

Date: October 23 (Meeting Room B)

chair	Yantao Wu	
14:00-14:25	Vic K. T. Law The Hong Kong University of Science and Technology	Quantum Metric Lengths in Flat Band Superconductors
14:25-14:50	Youichi Yanase Kyoto University	Multiple superconducting phases, fractional vortex, and topological superconductivity in locally noncentrosymmetric systems
14:50-15:05	Qing-Dong Jiang Shanghai Jiao Tong University	Virtual Photons, Real Effects: The Rise of Cavity Quantum Materials
15:05-15:20	Yuan Yao Shanghai Jiao Tong University	Non-perturbative approach to many-body physics by twisting operators
15:20-15:35	Guancong Ma Hong Kong Baptist University	Non-Hermitian skin effects on ideal flat bands
15:35-16:00	Break	
chair	Youichi Yanase	
16:00-16:25	Haifeng Du High Magnetic Field Laboratory, CAS	Electrical manipulation of a magnetic hopfion
16:25-16:50	Yutaka Akagi Ochanomizu University	CP^2 Skyrmion crystals in spin-1 quantum magnets
16:50-17:05	Nakhyeon Choi Yonsei University	Chiral magnon in strained altermagnet from first-principles calculations
17:05-17:20	Yanhao Tang Zhejiang University	Chiral spin mode in semiconductor moiré superlattices
17:20-17:35	Hiro Ishizuka Institute of Science Tokyo	Nonlinear Optical Response of Truly Chiral Phonons: Phonon Angular Momentum and Peltier Effect

Parallel Session: Condensed Matter Physics

Date: October 24 (Meeting Room A)

chair	Hanghui Chen	
9:00-9:25	Zhuoyu Chen Southern University of Science and Technology	Ambient-pressure superconductivity and electronic structures of nickelate films with engineered hybrid structures
9:25-9:40	Motofumi Noda University of Tokyo	Discovery of antiferromagnetic meron lattice in a centrosymmetric rare-earth magnet $\text{GdNi}_2\text{B}_2\text{C}$
9:40-9:55	Xiaohu Zheng Beijing Academy of Quantum Information Sciences	Evidence for Mott Gap Softening Coinciding with Spin Correlations Collapse in $\alpha\text{-RuCl}_3$
9:55-10:20	King Yau Yip National University of Singapore	The Quest for High Temperature Superconducting Nickelates

Date: October 24 (Meeting Room B)

chair	Qing-Dong Jiang	
9:00-9:25	Dongchen Qi Queensland University of Technology	Engineering Diamond Surfaces for Quantum Diamondtronics
9:25-9:40	Yantao Wu Institute of Physics, CAS	Accurate Gauge-Invariant Tensor Network Simulations for Abelian Lattice Gauge Theory in (2+1)D: ground state and real-time dynamics
9:40-9:55	Yidun Wan Fudan University	Landau-Ginzburg Paradigm of Topological Phases
9:55-10:20	Vladimir Bubanja Measurement Standards of New Zealand	Coulomb blockade of transport in topological superconductor nanowires