

Schedule

	5th Friday	6th Saturday	7th Sunday	8th Monday
Chairman		Wei Bao		
		9:00–9:05 Sishen Xie		
Chairman		Xincheng Xie	Fuchun Zhang	Thomas Palstra
		9:05–9:40 Ruirui Du	9:00–9:35 Wei Bao	9:00–9:35 Jian Wang
		9:40–10:15 Jinfeng Jia	9:35–10:10 Philip Phillips	9:35–10:10 Stephan Haas
		10:15–10:50 Werner Wegscheider	10:10–10:45 Masaki Fujita	10:10–10:45 Peng Xiong
			10:45–10:50 Group Photograph	
		10:50–11:20 Coffee Break	10:50–11:20 Coffee Break	10:45–11:20 Coffee Break
Chairman		Jiandi Zhang	Masaki Fujita	Andreas Honecker
		11:20–11:55 Ward Plummer	11:20–11:55 Thomas Palstra	11:20–11:55 Andrey Zheludev
		11:55–12:30 Jiandong Guo	11:55–12:30 Lan Chen	11:55–12:30 Bruce Normand
		Lunch Break	Lunch Break	Lunch Break
Chairman		Philip Phillips	Jurgen Smet	Ward Plummer
		14:00–14:35 Guanghan Cao	14:00–14:35 Yongqing Li	14:00–14:35 Jacques Chakhalian
		14:35–15:10 Fuchun Zhang	14:35–15:10 Xincheng Xie	14:35–15:10 Jiandi Zhang
		15:10–16:30 Coffee Break and Poster Session	15:10–16:20 Coffee Break and Poster Session	15:10–16:00 Coffee Break and Poster Session
Chairman		Bruce Normand	Lin Gu	Werner Wegscheider
		16:30–17:05 Andreas Honecker	16:20–16:55 Yimei Zhu	16:00–16:35 Jurgen Smet
		17:05–17:40 Je-Geun Park	16:55–17:30 Jianmin Zuo	16:35–17:10 Ke He
	18:00–19:00 Welcome Reception	17:40–18:15 Tao Xiang		17:10–17:15 Closing Remarks
	19:00 Dinner	19:00 Dinner	19:00 Banquet	18:30 Dinner

Program

Friday 5th June

18:00 - 19:00 Welcome Reception in Department of Physics, Renmin University

19:00 - 20:30 Dinner in Renmin University

Saturday 6th June

Opening of the Workshop in Auditorium M234 of Institute of Physics, CAS

Chaired by *Wei Bao*

09:00 - 09:05 Welcome Remarks, Sishen Xie, Dean of Science, Renmin University

Morning Session 1: Topological Insulators I -- Edge States and Majorana Fermions

Chaired by *Xincheng Xie*

09:05 - 09:40 **Ruirui Du (Peking University)**

Ultralow Temperature Transport of InAs/GaSb Edge States: Helical Luttinger Liquid

09:40 - 10:15 **Jinfeng Jia (Shanghai Jiaotong University)**

Majorana mode in the vortex core and single-layer FeSe on SrTiO₃ with a superconducting T_c above 100 K

10:15 - 10:50 **Werner Wegscheider (ETH Zurich)**

InAs/GaSb combined quantum wells - from an old material to a new 2D topological insulator

10:50 - 11:20 Coffee Break

Morning Session 2: Surface Phenomena

Chaired by *Jiandi Zhang*

11:20 - 11:55 **Ward Plummer (Louisiana State University)**

The Marriage of Spin and Lattice by the Minister of Charge at the Surface of Layered Transition Metal Compounds

11:55 - 12:30 **Jiandong Guo (IoP CAS)**

A New HREELS System with 2D Energy/Momentum Resolution – Design and Applications

12:30 - 14:00 Lunch Break

Afternoon Session 3: Superconductivity I -- Novel Superconductors

Chaired by *Philip Phillips*

14:00 - 14:35 **Guanghan Cao (Zhejiang University)**

Superconductivity and magnetism in Cr₃As₃ chain-based materials

14:35 - 15:10 **Fuchun Zhang (Zhejiang University)**

Theory for superconductivity in alkali chromium arsenides K₂Cr₃As₃

15:10 - 16:30 Coffee Break and Poster Session

Afternoon Session 4: Quantum Magnetism I -- Frustration and Dynamics

Chaired by *Bruce Normand*

16:30 - 17:05 **Andreas Honecker (University of Cergy-Pontoise)**

Finite-temperature dynamics of highly frustrated quantum magnets

17:05 - 17:40 **Je-Geun Park (Seoul National University)**

Probing new features of spin dynamics in RMnO_3 and Li_2RuO_3

17:40 - 18:15 **Tao Xiang (IoP CAS)**

Tensor-Network Renormalization of the Kagome Heisenberg Model

19:00 Dinner

Sunday 7th June

Morning Session 1: Superconductivity II -- Correlated Superconductors

Chaired by *Fuchun Zhang*

09:00 - 09:35 **Wei Bao (Renmin University)**

Orbital ordering, phase separation, and high-pressure neutron scattering studies of the 245 iron-based superconductors

09:35 - 10:10 **Philip Phillips (University of Illinois at Urbana-Champaign)**

Orbital or Spin Physics in the Iron Pnictide Superconductors

10:10 - 10:45 **Masaki Fujita (Tohoku University)**

Magnetic excitations in electron-doped $\text{Pr}_{1.40-x}\text{La}_{0.60}\text{Ce}_x\text{CuO}_{4-y}$

10:45 - 10:50 Group Photograph

10:50 - 11:20 Coffee Break

Morning Session 2: Novel Materials

Chaired by *Masaki Fujita*

11:20 - 11:55 **Thomas Palstra (University of Groningen)**

Multifunctional Properties of Organic-Inorganic Hybrid Compounds

11:55 - 12:30 **Lan Chen (IoP CAS)**

Experimental realization and characterization of silicene

12:30 - 14:00 Lunch Break

Afternoon Session 3: Topological Insulators II -- Localization

Chaired by *Jurgen Smet*

14:00 - 14:35 **Yongqing Li (IoP CAS)**

Electron localization in 3D topological insulator thin films

14:35 - 15:10 **Xincheng Xie (Peking University)**

Dephasing and disorder effects in topological insulators

15:10 - 16:20 Coffee Break and Poster Session

Afternoon Session 4: Probing Complex Surfaces

Chaired by Lin Gu

16:20 - 16:55 **Yimei Zhu (Brookhaven National Laboratory)**

Understanding electron-phonon coupling and disentangling charge, orbital and lattice contributions using ultrafast electron probes

16:55 - 17:30 **Jianmin Zuo (University of Illinois at Urbana-Champaign)**

Symmetry and bonding in oxides and chalcogenides

17:30 Leave IoP for transit to banquet venue

19:00 Banquet

Monday 8th June

Morning Session 1: Superconductivity III -- Two-dimensional Superconductors

Chaired by Thomas Palstra

09:00 - 09:35 Jian Wang (Peking University)

Superconductivity at the 2D limit and potential topological superconductivity in 3D Dirac semimetal

09:35 - 10:10 **Stephan Haas (University of Southern California)**

Phase Diagram of the Dichalcogenides

10:10 - 10:45 **Peng Xiong (Florida State University):**

Magnetic Field Induced Super-Insulating State and Enhancement of Superconductivity in Ultrathin Pb Films

10:45 - 11:20 Coffee Break

Morning Session 2: Quantum Magnetism II -- Quantum Criticality

Chaired by Andreas Honecker

11:20 - 11:55 **Andrey Zheludev (ETH Zurich)**

New advances on the $z = 1$ QCP in gapped quantum magnets

11:55 - 12:30 **Bruce Normand (Renmin University)**

Quantum and classical criticality in a dimerised quantum antiferromagnet

12:30 - 14:00 Lunch Break

Afternoon Session 3: Artificial Oxide Interfaces

Chaired by Ward Plummer

14:00 - 14:35 **Jacques Chakhalian (University of Arkansas)**

Novel orbital Kondo effect in tricolor oxide superlattices

14:35 - 15:10 **Jiandi Zhang (Louisiana State University)**

Surface termination, interface mixing, and layer-by-layer doping variation of ultrathin manganite films

15:10 - 16:00 Coffee Break and Poster Session

Afternoon Session 4: Quantum Hall Effects -- Fractional and Anomalous

Chaired by *Werner Wegscheider*

16:00 - 16:35 **Jurgen Smet (MPI Stuttgart)**

Odd even-denominator fractional quantum Hall physics in ZnO-based two-dimensional electron systems

16:35 - 17:10 **Ke He (Tsinghua University)**

The Quantum Anomalous Hall Effect in Thin Films of Magnetic Topological Insulators

17:10 - 17:15 Closing Remarks

18:30 Dinner in Zhongguancun