

International Workshop on
Surfaces and Interfaces of Quantum Materials

June 3rd-4th, 2019 Beijing

Scientific Program

Monday, June 3rd, Meeting Room 236, Building M, IOP, CAS	
09:00-10:30	Session 1 Chair: Kuijuan Jin
09:00-09:30	Socrates T. Pantelides (<i>Vanderbilt University</i>) The true quantum physical reality of polar-nonpolar oxide interfaces – the polar-catastrophy model confuted
09:30-10:00	Jian Shen (<i>Fudan University</i>) Complex magnetic domain structures in oxides: physical origin and device application
10:00-10:30	Coffee Break and Photo

10:30-12:00	Session 2 Chair: Ward Plummer
10:30-11:00	Jiandi Zhang (<i>Louisiana State University</i>) Polar Metal: from Bulk to Interface
11:00-11:30	Chungang Duan (<i>East China Normal University</i>)
11:30-12:00	Zhigao Sheng (<i>High Magnetic Field Laboratory of Chinese Academy of Science</i>) Pre-ferroelectric state in SrTiO ₃ crystals
12:00	Lunch Break

14:00-16:20	Session 3 Chair: Jak Chakhalian
14:00-14:30	Ward Plummer (<i>Louisiana State University</i>) Probing Functionality of Mother Nature's Interfaces

14:30-15:00	Tom Wu (<i>University of New South Wales</i>) Interface-enabled photodetection in oxide heterostructures
15:00-15:30	Andreas Herklotz (<i>Martin-Luther-University Halle-Wittenberg</i>) Strain Doping: A New Avenue for Understanding and Controlling Materials
15:30-16:00	Tong Zhang (<i>Fudan University</i>) Evidence of clean Majorana zero mode in the vortex core of (Li, Fe)OHFeSe
16:00-16:20	Coffee Break

16:20-17:50	Session 4 Chair: Jiandi Zhang
16:20-16:50	Jak Chakhalian (<i>Rutgers University</i>) Emergent Quantum Phenomena in Artificial (111)-Oriented Spinels
16:50-17:20	Jianmin Zuo (<i>University of Illinois</i>) Charge and defect dynamics in transition metal oxides
17:20-17:50	Lin Gu (<i>Institute of Physics, CAS</i>) Structure and electronic structure of functional materials under symmetric breaking
18:20	Banquet

Tuesday, June 4 th , Meeting Room 236, Building M, IOP, CAS	
09:00-10:50	Session 5 Chair: Yanwei Cao
09:00-09:30	Jian Liu (<i>University of Tennessee</i>) Controllable emergent 2D quantum antiferromagnetism in iridate-based heterostructures
09:30-10:00	Cheng Song (<i>Tsinghua University</i>) Electrical Switching of Antiferromagnet
10:00-10:30	Meng Meng (<i>Institute of Physics, CAS</i>)

	Structural Phase Transitions in Lanthanum Cobaltite induced by Charge Transfer
10:30-10:50	Coffee Break

10:50-11:50	Session 6 Chair: Chen Ge
10:50-11:20	Felix Trier (<i>Université Paris-Saclay</i>) Electric field control of spin-charge interconversion in ferromagnetic-free oxide Rashba nanodevices
11:20-11:50	Anquan Jiang (<i>Fudan University</i>) Charge injection and large wall current in high-density ferroelectric domain-wall memory
12:00	Lunch Break

14:00-16:30	Session 7 Chair: Jiandong Guo
14:00-14:30	Pu Yu (<i>Tsinghua University</i>) Electric field control of magnetism in complex oxides through proton evolution
14:30-15:00	Chen Ge (<i>Institute of Physics, CAS</i>) Electrolyte-gated oxide transistors and their neuromorphic applications
15:00-15:30	Yanwei Cao (<i>Ningbo Institute of Materials Technology and Engineering, CAS</i>) Designer multiferroic metals
15:30-16:00	Yuefeng Nie (<i>Nanjing University</i>) Freestanding Crystalline Oxide Perovskites down to the monolayer limit
16:00	Closing Remarks