

International Workshop on
Surfaces and Interfaces of Quantum Materials
 June 24th-25th, 2021 Beijing
Scientific Program

Thursday, June 24 th , Meeting Room 236, Building M, IOP, CAS	
09:00-10:20	Session 1 Chair: Jiandong Guo/Kuijuan Jin
09:00-09:10	Welcome Speech
09:10-09:35	Jak Chakhalian (<i>Rutgers University</i>) How to liquefy spins in a quantum way
09:35-10:00	Rui Peng (<i>Fudan University</i>) ARPES studies on several interfacial superconductors
10:00-10:20	Coffee Break and Photo

10:20-12:00	Session 2 Chair: Jinxing Zhang
10:20-10:45	Mohammad Saghayezhian (<i>Louisiana State University</i>) Magnetism and itinerancy in iso-electronic and iso-structural ruthenates
10:45-11:10	Lingfei Wang (<i>University of Science and Technology of China</i>) Harnessing the interfacial magnetism of oxide heterostructures via oxygen vacancy engineering
11:10-11:35	Hanghui Chen (<i>New York University</i>) Emergent Phenomena in Complex Oxides
11:35-12:00	Binbin Chen (<i>East China Normal University</i>) Metal-insulator transitions in nickelate superlattices with modulated octahedral superstructure and band filling
12:00	Lunch Break

14:00-16:00	Session 3 Chair: Hangwen Guo
14:00-14:25	Yonggang Zhao (<i>Tsinghua University</i>) Electric-field control of skyrmions in multiferroic heterostructure via magnetoelectric coupling
14:25-14:50	Jinxing Zhang (<i>Beijing Normal University</i>) Magnetoelectric Phase Transition Driven by Interfacial-engineered Dzyaloshinskii-Moriya Interaction
14:50-15:15	Shuai Dong (<i>Southeast University</i>) Manipulation of magnetic domain wall by ferroelectric switching: Dynamic magnetoelectricity at the nanoscale
15:15-15:40	Yuefeng Nie (<i>Nanjing University</i>) Extreme tunability and novel functionality in ferroelectric oxide membranes
15:40-16:00	Coffee Break

16:00-17:15	Session 4 Chair: Erjia Guo
16:00-16:25	Sujit Das (<i>Unité Mixte de Physique CNRS Thales</i>) Emergent phenomena of polar topologies
16:25-16:50	Woo Seok Choi (<i>Sungkyunkwan University</i>) Interlayer Exchange Interaction induced by Chiral Phonons
16:50-17:15	Xiaofang Zhai (<i>ShanghaiTech University</i>) Realization of Electron Antidoping by Modulating the Breathing Distortion in BaBiO ₃
17:40	Banquet

Friday, June 25 th , Meeting Room 236, Building M, IOP, CAS	
09:00-10:35	Session 5 Chair: Xiaoran Liu
09:00-09:25	Jed H. Pixley (<i>Rutgers University</i>) Twisting nodal superconductors
09:25-09:50	Weida Wu (<i>Rutgers University</i>) Magnetic imaging of domain walls and surface magnetism in antiferromagnetic topological insulator MnBi_2Te_4
09:50-10:15	Danilo Puggioni (<i>Northwestern University</i>) How can polar atomic displacements and metallicity coexist?
10:15-10:35	Coffee Break

10:35-11:50	Session 6 Chair: Yuefeng Nie
10:35-11:00	Yanwu Xie (<i>Zhejiang University</i>) <i>Superconductivity at $\text{LaAlO}_3/\text{KTaO}_3$ interfaces</i>
11:00-11:25	Danfeng Li (<i>City University of Hong Kong</i>) Superconductivity in Infinite Layer Nickelates without Rare-Earth Magnetism
11:25-11:50	Zhicheng Zhong (<i>Ningbo Institute of Materials Technology and Engineering, CAS</i>) Electronic structure of rare-earth infinite-layer RNiO_2 (R = La, Nd)
12:00	Lunch Break

14:00-16:00	Session 7 Chair: Yanwei Cao
14:00-14:25	Manuel Bibes (<i>Unité Mixte de Physique, CNRS, Thales, Université Paris-Saclay</i>) Oxide 2-dimensional electron gases for spin-charge interconversion
14:25-14:50	Zhigao Sheng (<i>High Magnetic Field Laboratory, CAS</i>) Phonon-related monochromatic THz radiation and its magneto-modulation in 2D ferromagnet
14:50-15:15	Yunzhong Chen (<i>Institute of Physics, CAS</i>) Electronic Structure Origins of the Enhanced Electron Mobility at Modulation-Doped Oxide Interfaces
15:15-15:40	Hangwen Guo (<i>Fudan University</i>) Emergent phenomena in complex oxide nanowires: from physics to devices
15:40-16:05	Haizhong Guo (<i>Zhengzhou University</i>) Topological phase transition and properties of Co-based transitional metal oxide thin films modulated by multi-fields
16:05	Closing Remarks