

## Concurrent session 4: Condensed Matter Physics

Friday, July 27, 2018

14:00 – 18:15	Concurrent session 4: Condensed Matter Physics
Venue:	Anthony Lau Building (E4), E4-1052
Chairpersons:	1. Daoxin Yao 2. Wei Ji
14:00 – 14:25	Keynote presentation
	Role of interlayer coupling in tuning structural and magnetic properties of 2D few-layers Wei Ji, Renmin University of China. MC: Daoxin Yao
14:25 – 16:10	Invited presentations
14:25 – 14:40	Topological valley-chiral edge states of Lamb waves in elastic thin plates Jun Mei, South China University of Technology. MC: Daoxin Yao
14:40 – 14:55	Global phase diagram of doped-Mott insulator on honeycomb lattice: A Grassmann tensor product state approach Zhengcheng Gu, The Chinese University of Hong Kong. MC: Daoxin Yao
14:55 – 15:10	Bilayer graphene with Rashba spin-orbital coupling and staggered sublattice potentials: topological phase and topological zero-line mode Ma Luo, Sun Yat-sen University. MC: Daoxin Yao
15:10 – 15:25	Gapless edge states of 2D symmetry-protected topological phases: field theories, lattice models, and numerics Chenjie Wang, City University of Hong Kong. MC: Daoxin Yao
15:25 – 15:40	Multi-scale Time Dependent Density Functional Theory for Field Electron Emission Weiliang Wang, Sun Yat-sen University. MC: Daoxin Yao
15:40 – 15:55	Self-learning Monte Carlo method and cumulative update Junwei Liu, Hong Kong University of Science and Technology. MC: Daoxin Yao
15:55 – 16:10	Quantum transport in nano-devices Bin Wang, Shenzhen University. MC: Daoxin Yao
16:10 – 16:30	Tea/coffee break, poster, discussion
16:30 – 16:55	Keynote presentation
	Intrinsic magnetoresistivity in three-dimensional Dirac materials Shunqing Shen, The University of Hong Kong. MC: Wei Ji
16:55 – 17:55	Invited presentations
16:55 – 17:10	Randomness induced spin-liquid-like phase in the spin-1/2 $J_1$ - $J_2$ triangular Heisenberg model Hanqing Wu, Sun Yat-sen University. MC: Wei Ji
17:10 – 17:25	Generalized Thouless Pump: theory and experimental realization Longwen Zhou, National University of Singapore. MC: Wei Ji
17:25 – 17:40	Casimir forces between silicon micromechanical components Hobun Chan, Hong Kong University of Science and Technology. MC: Wei Ji

17:40 – 17:55	<b>Microscopic piezoelectric theory and electromechanical coupling correlations in 2D piezoelectric crystals</b> Yunhua Wang, Sun Yat-sen University. MC: Wei Ji
<b>17:55 – 18:15</b>	<b>Contributed presentations</b>
17:55 – 18:05	<b>Amines induced Lead based complex from MAPbI<sub>3</sub> Perovskite single crystal</b> Xiyuan Feng, University of Macau. MC: Wei Ji
18:05 – 18:15	<b>Field angle resolved magneto-resistance of the Ising superconductor NbSe<sub>2</sub></b> Jian Lyu, Hong Kong University of Science and Technology. MC: Wei Ji
<b>After 18:20</b>	<b>Banquet Dinner (Hotel: Galaxy Macau, Bus pick-up point &amp; time: E4 G/F Lobby @ 18:20 pm)</b>

## Saturday, July 28, 2018

<b>09:00 – 12:00</b>	<b>Concurrent session 4: Condensed Matter Physics</b>
<b>Venue:</b>	<b>Anthony Lau Building (E4), E4-1052</b>
<b>Chairpersons:</b>	<b>1. Weiqiang Chen 2. Guo Hong</b>
<b>09:00 – 09:25</b>	<b>Keynote presentation</b>
	<b>Chiral SDW and d + id superconductivity in the magic-angle twisted bilayer-graphene</b> Weiqiang Chen, Southern University of Science and Technology. MC: Guo Hong
<b>09:25 – 10:25</b>	<b>Invited presentations</b>
09:25 – 09:40	<b>Strain and codoping strategies in transition metal and rare earth metal doped Bi<sub>2</sub>Se<sub>3</sub></b> Junyi Zhu, The Chinese University of Hong Kong. MC: Guo Hong
09:40 – 09:55	<b>Raman evidence for dimerization and Mott collapse in <math>\alpha</math>-RuCl<sub>2</sub></b> Mingyuan Huang, Southern University of Science and Technology. MC: Guo Hong
09:55 – 10:10	<b>Multipole interactions in the molecular polarizabilities of water from ambient to high pressures</b> Ding Pan, Hong Kong University of Science and Technology. MC: Guo Hong
10:10 – 10:25	<b>Long range magnetic order stabilized by acceptors</b> Xiaodong Zhang, The Chinese University of Hong Kong. MC: Guo Hong
<b>10:25 – 10:35</b>	<b>Contributed presentations</b>
	<b>Aqueous carbon dioxide at extreme conditions by ab initio molecular dynamics</b> Nore Stolte, Hong Kong University of Science and Technology. MC: Guo Hong
10:35 – 10:55	Tea/coffee break, poster, discussion
<b>10:55 – 11:40</b>	<b>Invited presentations</b>
10:55 – 11:10	<b>Multifunctional, 0D &amp; 1D Graphene aerogel-phase change material composites</b> Guo Hong, University of Macau. MC: Weiqiang Chen
11:10 – 11:25	<b>Exciton and valley dynamics in monolayer tungsten diselenide</b> Tengfei Yan, The University of Hong Kong. MC: Weiqiang Chen
11:25 – 11:40	<b>Optical selection rules for excitonic Rydberg series in the massive Dirac cones of hexagonal two-dimensional materials</b> Pu Gong, The University of Hong Kong. MC: Weiqiang Chen
<b>11:40 – 12:00</b>	<b>Contributed presentations</b>
11:40 – 11:50	<b>Enhancement of superconductivity on approaching the structural quantum critical point</b> Yiu Wing Cheung, The Chinese University of Hong Kong. MC: Weiqiang Chen
11:50 – 12:00	<b>Anisotropic two-gap superconductivity and the absence of a Pauli paramagnetic limit in single-crystalline LaO<sub>0.5</sub>F<sub>0.5</sub>BiS<sub>2</sub></b> Yuet Ching Chan, The Chinese University of Hong Kong. MC: Weiqiang Chen
<b>12:05 – 14:00</b>	<b>Buffet Lunch (venue: UM Chao Kuang Piu College, W21-G019)</b>