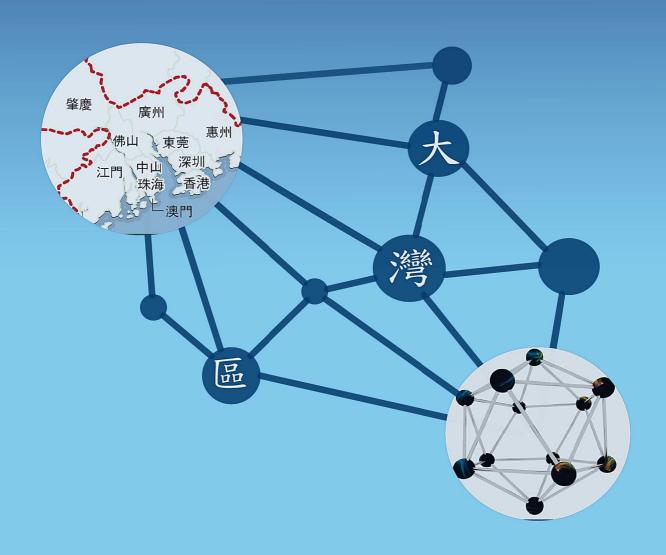
2018 Joint Annual Conference of Physical Societies in Guangdong—Hong Kong—Macao Greater Bay Area

粵港澳大灣區物理學會2018聯合年會

26-29/07/2018

University of Macau 澳門大學



Organizers:

主辦單位









26 July (Thursday)

| Time | Activity | Venue |
|-------------|---|--------------|
| 14:30-17:30 | Registration | E4 G/F Lobby |
| 18:00-20:00 | Dinner hosted by Director of Institute of Applied Physics and Materials Engineering | N1-G008 |

| Time | Activity | Venue |
|---------------|---|--------------|
| 09:00-09:15 | Opening Remarks | |
| | 1. Prof. Yonghua SONG, Rector, University of Macau | F4 C070 |
| | 2. Prof. Xiang ZHANG, The University of Hong Kong | E4-G078 |
| | 3. Prof. Xin-Cheng XIE, National Natural Science Foundation of China | |
| 09:15-09:20 | Group Photo | |
| Plenary Prese | entation (chaired by Prof. Zikang Tang, University of Macau) | |
| 09:20-09:40 | Photonics beyond diffraction limit | |
| | By Prof. Xiang ZHANG, The University of Hong Kong | |
| 09:40-10:10 | When Big Data Meets Physics | E4-G078 |
| | By Prof. Lionel M. S. NI, University of Macau | |
| 10:15-10:35 | Coffee Break | E4 G/F Lobby |
| 10:35-11:10 | Water: Soft in Nature Hard in Science | |
| | By Prof. Enge WANG, Peking University & Chinese Academy of Sciences | |
| 11:10-11:40 | Introduction of Nuclear Research Centre in Huizhou | |
| | By Prof. Wenlong ZHAN, Chinese Academy of Sciences | E4-G078 |
| 11:40-12:00 | Towards p-Type Doping for ZnO Light-Emitting Devices | |
| | By Prof. Zikang TANG, University of Macau | |
| Advanced Ted | chnology for Scientific Research | |
| 12:00-12:12 | Applications of Inert Atmosphere Technologies and Equipment | E4-G078 |
| | By Delong ZHANG, Vigor Gas Purification Technologies (Suzhou) Co.,Ltd | |
| Lunch | | |
| 12:15-13:55 | Buffet lunch | W21-G019 |
| 13:00-14:00 | Internal meeting of Physical Society of Hong Kong (by invitation) | E4-G051 |
| Concurrent Se | essions (Please refer details to subsequent pages) | |
| 14:00-18:00 | Session 1: Astrophysics and Astronomy (page 3) | E4-3052 |
| | Session 2: Atomic, Molecular and Optical Physics (page 5) | E4-1051 |
| | Session 3: Biophysics and Soft Matter (page 7) | E4-3054 |
| | Session 4: Condensed Matter Physics (page 9) | E4-1052 |
| | Session 5: Interdisciplinary Physics (page 11) | E4-3053 |
| | Session 6-1: Materials Physics and Engineering (page 12) | E4-3062 |
| | Session 6-2: Materials Physics and Engineering (page 14) | E4-3055 |
| | Session 7: Scattering, Particle, Nuclear and Plasma Physics (page 16) | E4-3056 |
| | Session 8: Quantum & Statistical Physics (page 17) | E4-3063 |
| Banquet Dinn | er | |
| 18:30-20:30 | Bus pick-up point and departure time: | Oasis, |
| | E4 G/F Lobby from 18:00-18:20 | Galaxy Macau |

| Time | Activity | Venue |
|----------------------|---|----------------|
| Concurrent Se | essions | |
| 09:00-12:05 | Session 1: Astrophysics and Astronomy (page 4) | E4-3052 |
| | Session 2: Atomic, Molecular and Optical Physics (page 6) | E4-1051 |
| | Session 3: Biophysics and Soft Matter (page 8) | E4-3054 |
| | Session 4: Condensed Matter Physics (page 10) | E4-1052 |
| | Session 6-1: Materials Physics and Engineering (page 13) | E4-3062 |
| | Session 6-2: Materials Physics and Engineering (page 15) | E4-3055 |
| | Session 8: Quantum & Statistical Physics (page 18) | E4-3063 |
| Lunch | | _ |
| 12:05-13:55 | Buffet lunch | W21-G019 |
| 13:00-14:00 | Internal meeting of Physical Society of Guangdong (by invitation) | E4-1061 |
| 13:00-14:00 | Internal meeting of The Physical Society of Macao (by invitation) | E4-G051 |
| Plenary Prese | ntation (chaired by Prof. Zidan WANG, The University of Hong Kong and Prof. | Biao WANG, Sun |
| Yat-Sen Unive | rsity) | |
| 14:00-14:30 | Discrete scale invariance in topological semimetals | |
| | By Prof. Xin-Cheng XIE, Peking University | F4 C070 |
| 14:30-15:00 | Quantum transport in Dirac semimetal-superconductor hybrid devices | E4-G078 |
| | By Prof. Dapeng YU, Southern University of Science and Technology | |
| 15:00-15:30 | Study on Improvement Technology for Durability of Concrete Under the condition | |
| | of severe environment | |
| | By Prof. Changwen MIAO, Southeast University | _ |
| 15:30-16:00 | Binary evolution and its applications | |
| | By Prof. Zhanwen HAN, Chinese Academy of Sciences | |
| 16:00-16:30 | Coffee Break / Poster Exhibition | E4 G/F Lobby |
| 17:00-17:30 | 夸克胶子新物质形态的硬探针信号及相关物理进展 | |
| | By Prof. Enke WANG, South China Normal University | |
| 17:30-18:00 | China Spallation Neutron Source: a rising star on the horizon for neutron scattering in China | E4-G078 |
| | By Prof. Fangwei WANG, Chinese Academy of Sciences | |
| 18:00-18:10 | Closing Speech | |
| | Prof. Biao WANG, Sun Yat-Sen University | |
| | Best Poster Award Presentation | |

29 July (Sunday)

| Time | Activity | Venue |
|-------------|--------------------|-------|
| 08:30-12:30 | Half-day city tour | N/A |

Concurrent session 1: Astrophysics and Astronomy

| 14:00 – 18:05 | Concurrent session 1: Astrophysics and Astronomy |
|---------------|--|
| Venue: | Anthony Lau Building (E4), E4-3052 |
| Chairpersons: | 1. Kwing Lam Chan 2. Tao Cai 3. Long Long Feng |
| 14:00 – 14:25 | Keynote presentation |
| | Turbulence on Cosmic Scales Long Long Feng, Sun Yat-sen University. MC: Kwing Lam Chan |
| 14:25 – 15:55 | Invited presentations |
| 14:25 – 14:40 | Numerical Modeling of the Carbon Dioxide Cycle in the Martian Atmosphere Kim Chiu Chow, Macau University of Science and Technology. MC: Tao Cai |
| 14:40 – 14:55 | Magnetars: the Strongest Magnets in the Universe Stephen CY. Ng, The University of Hong Kong. MC: Tao Cai |
| 14:55 – 15:10 | The Tai Chi in Star Formation Hua-bai Li, Chinese University of Hong Kong. MC: Tao Cai |
| 15:10-15:25 | Characterizing the Radiative and Timing Anomaly of Magnetars Chin-Ping Hu, The University of Hong Kong. MC: Tao Cai |
| 15:25 – 15:40 | Convective Dynamics of Gaseous Planets Kwing Lam Chan, Macau University of Science and Technology. MC: Tao Cai |
| 15:40 – 15:55 | Variable Mass Accretion Rates in Star Formation Yang Gao, Sun Yat-sen University. MC: Tao Cai |
| 15:55 – 16:15 | Tea/coffee break, poster, discussion |
| 16:15 – 16:40 | Keynote presentation |
| | Multimessenger observations of a flaring blazar coincident with a high-energy neutrino Pablo M. Saz Parkinson, The University of Hong Kong. MC: Long Long Feng |
| 16:40 – 17:55 | Invited presentations |
| 16:40 – 16:55 | Energy Dissipation Processes in Solar Wind Turbulence Yi Wang, Harbin Institute of Technology, Shenzhen. MC: Long Long Feng |
| 16:55 – 17:10 | What Can We Learn about Red Giants from Asteroseismology Tao Wu, Yunnan Observatories, CAS. MC: Long Long Feng |
| 17:10 – 17:25 | Gamma-ray Burst Jet Breaks Revisited and GRB Observing Plan Xiang-Gao Wang, Guangxi University. MC: Long Long Feng |
| 17:25 – 17:40 | Numerical Simulations of Efficient Turbulent Convection Tao Cai, Macau University of Science and Technology. MC: Long Long Feng |
| 17:40 – 17:55 | Prodigious and Continuous Formation of Super Star Clusters from Cooled Intracluster Gas Jeremy Lim, The University of Hong Kong. MC: Long Long Feng |
| 17:55 – 18:05 | Contributed presentations |
| | Searching for Soft Pulsars with the Fermi Large Area Telescope Brent Limyansky, University of California. MC: Long Long Feng |
| After 18:10 | Banquet Dinner (Hotel: Galaxy Macau, Bus pick-up point & time: E4 G/F Lobby @ 18:10 pm) |

| 09:00 – 12:10 | Concurrent session 1: Astrophysics and Astronomy |
|---------------|---|
| Venue: | Anthony Lau Building (E4), E4-3052 |
| Chairpersons: | 1. Cong Yu 2. Man Hoi Lee |
| 09:00 - 09:25 | Keynote presentation |
| | Dynamics of Circumstellar Planets in Binary System Man Hoi Lee, University of Hong Kong. MC: Cong Yu |
| 09:25 – 10:25 | Invited presentations |
| 09:25 – 09:40 | The Structure and Dynamical Roles of Circumplanetary Discs Hsiang-Hsu Wang, Chinese University of Hong Kong. MC: Cong Yu |
| 09:40 - 09:55 | Characteristics Time of Stellar Flares on Solar-like Stars Yan Yan, National Astronomical Observatory, CAS. MC: Cong Yu |
| 09:55 – 10:10 | Multi-fluid MHD Simulation of the Magnetic Flux Rope in the Ionosphere of Venus and Mars Liang Hai Xie, Macau University of Science and Technology. MC: Cong Yu |
| 10:10 – 10:25 | The Dependence of Flux Transfer Events on Interplanetary Magnetic Field Clock Angles Tian Ran Sun, National Space Science Center, CAS. MC: Cong Yu |
| 10:25 – 10:45 | Tea/coffee break, poster, discussion @E4 G/F Lobby |
| 10:45 – 11:10 | Keynote presentation |
| | The Formation of Super-Earths by Tidally Forced Turbulence Cong Yu, Sun Yat-Sen University. MC: Man Hoi Lee |
| 11:10 – 12:10 | Invited presentations |
| 11:10 – 11:25 | HKU's Laboratory for Space Research - an interdisciplinary nexus for the future Quentin Parker, The University of Hong Kong. MC: Man Hoi Lee |
| 11:25 – 11:40 | Dynamic Processes of Martian Dust Storms in the Northern Mid-latitude Region during the Storm Season Jing Xiao, Macau University of Science and Technology. MC: Man Hoi Lee |
| 11:40 – 11:55 | Shock Acceleration with Focused Transport Model Ping Bing Zuo, Harbin Institute of Technology, Shenzhen. MC: Man Hoi Lee |
| 11:55 – 12:10 | Circumstellar Disks in Close Binaries: Prograde v.s. Retrograde Xiaojia Zhang, The University of Hong Kong. MC: Man Hoi Lee |
| 12:15- 14:00 | Buffet Lunch @W21-G019 |

Concurrent session 2: Atomic, Molecular and Optical Physics

| 14:00 – 18:00 | Concurrent session 2: Atomic, Molecular and Optical Physics |
|--|--|
| Venue: | Anthony Lau Building (E4), E4-1051 |
| Chairpersons: | 1. Hin-Lap Yip 2. Youtian Tao 3. Guichuan Xing |
| 14:00 – 14:25 | Keynote presentation |
| | Microfluidics for artificial photosynthesis of carbohydrates Xuming Zhang, The Hong Kong Polytechnic University. MC: Hin-Lap Yip |
| 14:25 – 15:55 | Invited presentations |
| 14:25 – 14:40 | Fermi Liquid Properties for Weakly Repulsive p-wave Fermi Gases Shanshan Ding, The University of Hong Kong. MC: Guichuan Xing |
| 14:40 – 14:55 | High-performance SERS substrates: fabrication and applications Yanjun Liu, Southern University of Science and Technology. MC: Guichuan Xing |
| 14:55 – 15:10 | Heavy Metal Containing Terpolymers for Polymer Solar Cells Youtian Tao, Nanjing Tech University. MC: Guichuan Xing |
| 15:10 – 15:25 | Test Lorentz invariance with trapped Yb ⁺ ions Wu Bian, Sun Yat-Sen University. MC: Guichuan Xing |
| 15:25 – 15:40 | Production of Ultracold Molecule with Zeeman Deceleration and Laser Catalyzed Reaction Yang Liu, Sun Yat-Sen University. MC: Guichuan Xing |
| 15:40 – 15:55 | Structural Phase Transition and Optical Property Investigation of Perovskite Crystal Rui Chen, Southern University of Science and Technology. MC: Guichuan Xing |
| 15:55 – 16:05 | Contributed presentations |
| | Dipolar collisions between ultracold NaRb molecules Junyu He, The Chinese University of Hong Kong. MC: Guichuan Xing |
| 16:05 – 16:25 | Tea/coffee break, poster, discussion @E4 G/F Lobby |
| 10.00 10.20 | real corrections, poster, discussion @E4 d/F Lobby |
| 16:25 – 16:50 | Keynote presentation |
| | |
| | Keynote presentation Lead halide perovskite based optoelectronic devices and their applications |
| 16:25 – 16:50 | Keynote presentation Lead halide perovskite based optoelectronic devices and their applications Qinghai Song, Harbin Institute of Technology Shenzhen Graduate School. MC: Youtian Tao |
| 16:25 – 16:50 16:50 – 17:50 | Keynote presentation Lead halide perovskite based optoelectronic devices and their applications Qinghai Song, Harbin Institute of Technology Shenzhen Graduate School. MC: Youtian Tao Invited presentations All-dielectric valley photonic crystals: Paving the way to topological nanophotonics |
| 16:25 – 16:50 16:50 – 17:50 16:50 – 17:05 | Keynote presentation Lead halide perovskite based optoelectronic devices and their applications Qinghai Song, Harbin Institute of Technology Shenzhen Graduate School. MC: Youtian Tao Invited presentations All-dielectric valley photonic crystals: Paving the way to topological nanophotonics Jian-Wen Dong, Sun Yat-Sen University. MC: Youtian Tao Structural Engineering of Graphene for Flexible and Ultrasensitive Mechanical Sensors |
| 16:25 – 16:50 16:50 – 17:50 16:50 – 17:05 17:05 – 17:20 | Keynote presentation Lead halide perovskite based optoelectronic devices and their applications Qinghai Song, Harbin Institute of Technology Shenzhen Graduate School. MC: Youtian Tao Invited presentations All-dielectric valley photonic crystals: Paving the way to topological nanophotonics Jian-Wen Dong, Sun Yat-Sen University. MC: Youtian Tao Structural Engineering of Graphene for Flexible and Ultrasensitive Mechanical Sensors Xuchun Gui, Sun Yat-Sen University. MC: Youtian Tao Bright and Efficient Light-Emitting Diodes Based on Perovskite Quantum Dots |
| 16:25 – 16:50 16:50 – 17:50 16:50 – 17:05 17:05 – 17:20 17:20 – 17:35 | Keynote presentation Lead halide perovskite based optoelectronic devices and their applications Qinghai Song, Harbin Institute of Technology Shenzhen Graduate School. MC: Youtian Tao Invited presentations All-dielectric valley photonic crystals: Paving the way to topological nanophotonics Jian-Wen Dong, Sun Yat-Sen University. MC: Youtian Tao Structural Engineering of Graphene for Flexible and Ultrasensitive Mechanical Sensors Xuchun Gui, Sun Yat-Sen University. MC: Youtian Tao Bright and Efficient Light-Emitting Diodes Based on Perovskite Quantum Dots Kai Wang, Southern University of Science and Technology. MC: Youtian Tao Ultrafast Carrier Dynamics in few-Layer MoS2 |
| 16:25 – 16:50 16:50 – 17:50 16:50 – 17:05 17:05 – 17:20 17:20 – 17:35 17:35 – 17:50 | Lead halide perovskite based optoelectronic devices and their applications Qinghai Song, Harbin Institute of Technology Shenzhen Graduate School. MC: Youtian Tao Invited presentations All-dielectric valley photonic crystals: Paving the way to topological nanophotonics Jian-Wen Dong, Sun Yat-Sen University. MC: Youtian Tao Structural Engineering of Graphene for Flexible and Ultrasensitive Mechanical Sensors Xuchun Gui, Sun Yat-Sen University. MC: Youtian Tao Bright and Efficient Light-Emitting Diodes Based on Perovskite Quantum Dots Kai Wang, Southern University of Science and Technology. MC: Youtian Tao Ultrafast Carrier Dynamics in few-Layer MoS2 Zhaogang Nie, Guangdong University of Technology. MC: Youtian Tao |

| 09:00 - 12:00 | Concurrent session 2: Atomic, Molecular and Optical Physics |
|---------------|--|
| Venue: | Anthony Lau Building (E4), E4-1051 |
| Chairpersons: | 1. Kai Wang 2. Yanjun Liu |
| 09:00 - 09:25 | Keynote presentation |
| | Exciton-Phonon Interaction in 2D Materials Jun Zhang, Institute of Semiconductors, CAS. MC: Kai Wang |
| 09:25 - 10:10 | Invited presentations |
| 09:25 – 09:40 | Highly Stable Low-Threshold Lasing in Ruddlesden-Popper Perovskite Microplatelets Mingjie Li, Nanyang Technological University. MC: Kai Wang |
| 09:40 – 09:55 | Strong light-matter interaction in perovskite microcavities Qing Zhang, Peiking University. MC: Kai Wang |
| 09:55 – 10:10 | Observation of parity-time symmetry breaking transitions in a dissipative system of ultracold atoms Le Luo, Sun Yat-Sen University. MC: Kai Wang |
| 10:10 - 10:20 | Contributed presentations |
| | Dielectrophoresis-actuated tunable optofluidic lenses for in-plane light manipulation Qingming Chen, The Hong Kong Polytechnic University. MC: Kai Wang |
| 10:20 – 10:40 | Tea/coffee break, poster, discussion @E4 G/F Lobby |
| 10:40 - 11:05 | Keynote presentation |
| | Acoustic spin-redirection geometric phase Shubo Wang, City University of Hong Kong. MC: Yanjun Liu |
| 11:05 – 11:50 | Invited presentations |
| 11:05 – 11:20 | Optical Design for Advanced Tandem and Semitransparent Polymer Solar Cells Hin-Lap Yip, South China University of Technology. MC: Yanjun Liu |
| 11:20 – 11:35 | 3R MoS₂ with Broken Inversion Symmetry: A Promising Ultrathin Nonlinear Optical Device Xinfeng Liu, National Center for Nanoscience and Technology. MC: Yanjun Liu |
| 11:35 – 11:50 | Three-body recombination near a narrow Feshbach resonance in 6Li Jiaming Li, Sun Yat-Sen University. MC: Yanjun Liu |
| 11:50 – 12:00 | Contributed presentations |
| | Exitonic Excitation of a Superfluid Fermi Gas in a Double-layer Optical Lattice Johnson Chan, The University of Hong Kong. MC: Yanjun Liu |
| 12:05 – 14:00 | Buffet Lunch @W21-G019 |

Concurrent session 3: Biophysics and Soft Matter

| 14:00 – 18:10 | Concurrent session 3: Biophysics and Soft Matter |
|---------------|---|
| Venue: | Anthony Lau Building (E4), E4-3054 |
| Chairpersons: | 1. Dan Li 2. Xuanjun Zhang 3. De-Fang Ouyang |
| 14:00 – 14:25 | Keynote presentation |
| | Chemopallet - A Strategy for Tuning Photoluminescence of Supramolecular Coordination Entities Dan Li, Jinan University. MC: Xuanjun Zhang |
| 14:25 – 15:40 | Invited presentations |
| 14:25 – 14:40 | Multifunctional fluorescent optical sensors for bioanalysis Yanqing Tian, Southern University of Science and Technology, China. MC: Xuanjun Zhang |
| 14:40 – 14:55 | Semiconducting Polymers for Biomedical Applications Changfeng Wu, Southern University of Science and Technology, China. MC: Xuanjun Zhang |
| 14:55 – 15:10 | Mechanism of contact between a droplet and a smooth substrate Lei Xu, The Chinese University of Hong Kong. MC: Xuanjun Zhang |
| 15:10 – 15:25 | Systems approach to complex human microbial networks Pan-Jun Kim, Hong Kong Baptist University. MC: Xuanjun Zhang |
| 15:25 – 15:40 | Human brain conectomics and microbiomics in schizophrenia Kai Wu, South China University of Technology. MC: Xuanjun Zhang |
| 15:40 – 16:00 | Contributed presentations |
| 15:40 – 15:50 | Modified interfacial force field for accurate representation of peptide adsorption free energy on self-assembled monolayer Pratiti Bhadra, University of Macau. MC: Xuanjun Zhang |
| 15:50 – 16:00 | Analysis of potential landscape of colloidal diffusion using the Markov state model Chengjie Luo, Hong Kong University of Science and Technology. MC: Xuanjun Zhang |
| 16:00 – 16:20 | Tea/coffee break, poster, discussion @E4 G/F Lobby |
| 16:20 – 16:45 | Keynote presentation |
| | The control of megakaryocyte and platelet formation Mo Yang, South Medical University. MC: Dan Li |
| 16:45 – 17:30 | Invited presentations |
| 16:45 – 17:00 | Dynamic basis of substrate permissiveness of a plant acyltransferase Yi Wang, The Chinese University of Hong Kong. MC: Dan Li |
| 17:00 – 17:15 | Photoacoustic imaging guided cancer theranostics Yuan Zheng, University of Macau. MC: Dan Li |
| 17:15 – 17:30 | A microcannon device for overcoming biological membrane barriers by powering nanoparticles Gang Chen, Guangdong Pharmaceutical University. MC: Dan Li |
| 17:30 – 18:10 | Contributed presentations |
| 17:30 – 17:40 | Phase separation of swimmers drives long-range fluid Haoran Xu, The Chinese University of Hong Kong. MC: De-Fang Ouyang |
| 17:40 – 17:50 | Modeling Predictive Information and Direction Selectivity in the Retina Min Yan, Hong Kong University of Science and Technology. MC: De-Fang Ouyang |
| 17:50 – 18:00 | The Link between Membrane Composition and Permeability to Drugs Chi Hang Tse, The Chinese University of Hong Kong. MC: De-Fang Ouyang |
| 18:00 – 18:10 | Transfer learning for the prediction of pharmacokinetic properties Ye Zhuyifan, University of Macau. MC: De-Fang Ouyang |
| 18:15 | Banquet Dinner @Oasis, Galaxy Macau (Bus pick-up point & time: E4 G/F Lobby @ 18:15) |

| 09:00 - 12:00 | Concurrent session 3: Biophysics and Soft Matter |
|---------------|--|
| Venue: | Anthony Lau Building (E4), E4-3054 |
| Chairpersons: | 1. De-Fang Ouyang 2. Ophelia K. C. Tsui 3. Zhengtao Xu |
| 09:00 - 09:25 | Keynote presentation |
| | Sulfur Chemistry and Linker Cyclization for Stable and Electroactive Metal-Organic Frameworks Zhengtao Xu, City University of Hong Kong. MC: De-Fang Ouyang |
| 09:25 – 10:25 | Invited presentations |
| 09:25 – 09:40 | Growth factor-binding biomaterials scaffolds for tissue repair Chunming Wang, University of Macau. MC: Ophelia K. C. Tsui |
| 09:40 - 09:55 | Functionality-Oriented DNA Material: Taking Advantage of Amplification Techniques Leilei Tian, Southern University of Science and Technology, China. MC: Ophelia K. C. Tsui |
| 09:55 – 10:10 | Single- and Two-Photon Non-Diffracting Light-Sheet Microscopy for Bioimaging Shengwang Du, Hong Kong University of Science and Technology. MC: Ophelia K. C. Tsui |
| 10:10 – 10:25 | Titania-Coated Gold Nanostructures for Blocking Autophagy Flux and Sensitizing Cancer Cells to Proteasome Inhibitor-Induced Death Xiaoming Zhu, Macau University of Science and Technology. MC: Ophelia K. C. Tsui |
| 10:25 - 10:35 | Contributed presentations |
| | Investigation molecular mechanism of cyclodextrin formulations |
| | Zhao Qianqian, University of Macau. MC: Ophelia K. C. Tsui |
| 10:35 – 10:55 | Tea/coffee break, poster, discussion @E4 G/F Lobby |
| 10:55 – 11:20 | Keynote presentation |
| | Transport Properties of Thin Polymer Liquid and Solid Films |
| 44.00 44.00 | Ophelia K. C. Tsui, Hong Kong University of Science and Technology. MC: Zhengtao Xu |
| 11:20 – 11:50 | Invited presentations |
| 11:20 – 11:35 | High-throughput screening for identification of protein capture agents and proteomic profiling for disease biomarker discovery Liqian Gao, School of Pharmaceutical Science (Shenzhen), Sun Yat-Sen University. MC: Zhengtao Xu |
| 11:35 – 11:50 | Computational pharmaceutics Defang Ouyang, University of Macau. MC: Zhengtao Xu |
| 11:50 – 12:00 | Contributed presentations |
| | Pinning and depinning dynamics of a moving contact line over a disordered surface Caishan Yan, Hong Kong University of Science and Technology. MC: Zhengtao Xu |
| 12:05 – 14:00 | Buffet Lunch @W21-G019 |

Concurrent session 4: Condensed Matter Physics

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

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

Concurrent session 5: Interdisciplinary Physics

| 14:00 – 17:55 | Concurrent session 5: Interdisciplinary Physics |
|---------------|---|
| Venue: | Anthony Lau Building (E4), E4-3053 |
| Chairpersons: | 1. Yuan Cheng 2. Huaiyu Shao 3. Hui Pan |
| 14:00 – 14:25 | Keynote presentation |
| | Mechanical Properties of Silkworm Silk and its Applications Yuan Cheng, Institute of High Performance Computing. MC: Huaiyu Shao |
| 14:25 – 15:40 | Invited presentations |
| 14:25 – 14:40 | Multifunctional materials based on cellulose Haisong Qi, South China University of Technology. MC: Huaiyu Shao |
| 14:40 – 14:55 | Preparation, Structures, Properties of Natural Wood Fibrous Composite Materials: From Micron to Nanoscale Detao Liu, South China University of Technology. MC: Huaiyu Shao |
| 14:55 – 15:10 | Structural engineering pseudocapacitive performance of spinel cobaltite MCo₂O₄ (M = Mn, Ni, Cu, and Co) Kwun Nam Hui, University of Macau. MC: Huaiyu Shao |
| 15:10 – 15:25 | Efficiency Boost of Inverted Quantum Dot Light Emitting Diodes by Thermal Damage Suppression Using an HAT-CN Interlayer Shuangpeng Wang, University of Macau. MC: Huaiyu Shao |
| 15:25 – 15:40 | Solution-Controlled Fabrication of Wrinkled Graphene for Chemical and Mechanical Detection Wenjun Chen, Sun Yat-sen University. MC: Huaiyu Shao |
| 15:40 – 15:50 | Contributed presentations |
| | Hong Kong Housing Price Forecasting: a Guassian Process Approach Juntao Wang, Hong Kong University of Science and Technology. MC: Huaiyu Shao |
| 15:50 – 16:20 | Tea/coffee break, poster, discussion |
| 16:20 – 16:45 | Keynote presentation |
| | Metastable Nano Alloys for Hydrogen Storage Huaiyu Shao, University of Macau. MC: Yuan Cheng |
| 16:45 – 17:45 | Invited presentations |
| 16:45 – 17:00 | Design of 2D Nanostructures as Catalysts for Hydrogen Production Mengmeng Shao, University of Macau. MC: Yuan Cheng |
| 17:00 – 17:15 | Manipulation of Micro-drops on Deformable Superhydrophobic Platform enabled via Magnetic Actuation Binpu Zhou, University of Macau. MC: Yuan Cheng |
| 17:15 – 17:30 | The relation of sorptivity and capillary coefficient for water transport in mortar Yunsheng Zhang, Southeast University. MC: Yuan Cheng |
| 17:30 – 17:45 | Current status, challenges and opportunities of teaching physics in Sino-French nuclear engineering institute Kan Lai, Sun Yat-sen University. MC: Yuan Cheng |
| 17:45 – 17:55 | Contributed presentations |
| | Measuring the Scale of Congestion from Basic Quantities Tat Shing Choi, Hong Kong University of Science and Technology. MC: Yuan Cheng |
| After 18:00 | Banquet Dinner (Hotel: Galaxy Macau, Bus pick-up point & time: E4 G/F Lobby @ 18:00 pm) |

Concurrent session 6-1: Materials Physics and Engineering

| 14:00 – 17:50 | Concurrent session 6-1: Materials Physics and Engineering |
|---------------|--|
| Venue: | Anthony Lau Building (E4), E4-3062 |
| Chairpersons: | 1. Changwen Miao 2. Zongjin Li |
| 14:00 – 14:35 | Keynote presentation |
| | Micromechanical Modeling of Strain Hardening Cementitious Composites Christopher K Leung, The Hong Kong University of Science and Technology. MC: Changwen Miao |
| 14:35 – 15:35 | Invited presentations |
| 14:35 – 14:55 | The relation of sorptivity and capillary coefficient for water transport in mortar Yunsheng Zhang, Southeast University. MC: Changwen Miao |
| 14:55 – 15:15 | Application of embedded piezoelectrc transducers in concrete Dongyu Xu, University of Jinan. MC: Changwen Miao |
| 15:15 – 15:35 | How to effectively use graphene oxide to reinforce cementitious composites Zeyu Lu, The Hong Kong University of Science and Technology. MC: Changwen Miao |
| 16:00-16:30 | Tea/coffee break, poster, discussion @E4 G/F Lobby |
| 16:30 – 17:50 | Invited presentations |
| 16:30 – 16:50 | Development of low drying shrinkage foamed concrete Kaitai Wan, Brunel University London. MC: Zongjin Li |
| 16:50 – 17:10 | Flaw characterization and correlation with cracking strength in SHCC Cong Lu, Southeast University. MC: Zongjin Li |
| 17:10 – 17:30 | Development of structural-functional integrated energy storage concrete with innovative macro-encapsulated PCM Haibin Yang, Shenzhen University. MC: Zongjin Li |
| 17:30-17:50 | Engineering properties of Pb contaminated clay with nZVI treatment Wanhuan Zhou, University of Macau. MC: Zongjin Li |
| 18:00 | Banquet Dinner @Oasis, Galaxy Macau (Bus pick-up point & time: E4 G/F Lobby @ 18:00) |

| 09:00 – 12:00 | Concurrent session 6-1: Materials Physics and Engineering |
|---------------|--|
| Venue: | Anthony Lau Building (E4), E4-3062 |
| Chairpersons: | 1. Guoxing Sun 2. Wanhuan Zhou |
| 09:00 - 09:35 | Keynote presentation |
| | Numerical modeling of hydration and microstructure development of cement-based materials Caijun Shi, Hunan University. MC: Guoxing Sun |
| 09:35 - 10:35 | Invited presentations |
| 09:35 – 09:55 | Biomimetic superhydrophobic surface of concrete: Topographic and chemical modification by a direct spray method Wei She, Southeast University. MC: Guoxing Sun |
| 09:55 – 10:15 | Influence of concrete micro-dispersant on cement hydration Yanfeng Zuo, Institute of Building Materials Technology Information. MC: Guoxing Sun |
| 10:15 – 10:35 | Transportation model of calcium silicate hydrate in mesoscale: a molecular dynamic study Ming Sun, The Hong Kong University of Science and Technology. MC: Guoxing Sun |
| 10:35-11:00 | Tea/coffee break, poster, discussion @E4 G/F Lobby |
| 11:00 – 12:00 | Invited presentations |
| 11:00 – 11:20 | Effect of fly ash microsphere on the rheology and microstructure of alkali-activated fly ash/slag pastes Tao Yang, Yancheng Institute of Technology. MC: Wanhuan Zhou |
| 11:20 – 11:40 | Fire resistant eco concrete blocks containing waste glass Binmeng Chen, Nano and Advanced Materials Institute Ltd MC: Wanhuan Zhou |
| 11:40 – 12:00 | Application of nanocomposites in construction materials Guoxing Sun, University of Macau. MC: Wanhuan Zhou |
| 12:05 - 14:00 | Buffet Lunch @W21-G019 |

Concurrent session 6-2: Materials Physics and Engineering

| 14:00 – 18:05 | Concurrent session 6-2: Materials Physics and Engineering |
|---------------|--|
| Venue: | Anthony Lau Building (E4), E4-3055 |
| Chairpersons: | 1. Jensen Tsan Hang Li 2. Yinguo Xiao |
| 14:00 – 14:30 | Keynote presentation |
| | Structural and magnetic properties of cathode materials studied by neutron scattering Yinguo Xiao, Peking University Shenzhen Graduate School. MC: Jensen Tsan Hang Li |
| 14:30 – 15:10 | Invited presentations |
| 14:30 – 14:50 | Characterizing collective structure distortions in functional materials using atomic-scale scanning transmission electron microscopy Ye Zhu, The Hong Kong Polytechnic University. MC: Jensen Tsan Hang Li |
| 14:50 – 15:10 | Advanced nanotechnology for photovoltaic devices Feng Yan, The Hong Kong Polytechnic University. MC: Jensen Tsan Hang Li |
| 15:10 – 15:55 | Contributed presentations |
| 15:10 – 15:25 | Stability of wurtzite semi-polar surfaces: algorithms and practices Jingzhao Zhang, The Chinese University of Hong Kong. MC: Jensen Tsan Hang Li |
| 15:25 – 15:40 | Improved optoelectronic properties and thermal stability of non-stoichiometric p-type NiO ₁₊₆ by copper doping Kingsley Egbo, City University of Hong Kong. MC: Jensen Tsan Hang Li |
| 15:40 – 15:55 | Electrochemical catalytic reactions of topological-insulator thin films Qing Qu, Hong Kong University of Science and Technology. MC: Jensen Tsan Hang Li |
| 16:00 – 16:30 | Tea/coffee break, poster, discussion @E4 G/F Lobby |
| 16:30 – 17:50 | Invited presentations |
| 16:30 – 16:50 | Non-Hermitian elastic metamaterials Jensen Tsan Hang Li, Hong Kong University of Science and Technology. MC: Yinguo Xiao |
| 16:50 – 17:10 | Nanocrystalline CoCrFeNiAl _{0.3} high-entropy alloy thin film coating by magnetron sputtering Weibing Liao, Shenzhen University. MC: Yinguo Xiao |
| 17:10 – 17:30 | 半导体和绝缘体的激光辅助场蒸发 Yu Xia, Sun Yat-Sen University. MC: Yinguo Xiao |
| 17:30 – 17:50 | Realistic Floquet semimetal with exotic topological linkages between arbitrarily many nodal loops Linhu Li, National University of Singapore. MC: Yinguo Xiao |
| 17:50 – 18:05 | Contributed presentations |
| | Lattice-matched metastable Zinc-blende MnSe _{1×} Te _x on ZnTe as a promising THz emitter material Man Kit Cheng, Hong Kong University of Science and Technology. MC: Yinguo Xiao |
| 18:10 | Banquet Dinner @Oasis, Galaxy Macau (Bus pick-up point & time: E4 G/F Lobby @ 18:10) |

| 09:00 – 11:50 | Concurrent session 6-2: Materials Physics and Engineering |
|---------------|--|
| Venue: | Anthony Lau Building (E4), E4-3055 |
| Chairpersons: | 1. Lingmin Yao 2. Francis Chi-Chung Ling |
| 09:00 – 09:25 | Keynote presentation |
| | Reversible tuning of ferromagnetism, near band edge emission and resistive switching in Cu-doped ZnO film grown Francis Chi-Chung Ling, The University of Hong Kong. MC: Lingmin Yao |
| 09:25 – 10:25 | Invited presentations |
| 09:25 – 09:40 | Thermal transport manipulated by nanoscale interfacial engineering Huashan Li, Sun Yat-Sen University. MC: Lingmin Yao |
| 09:40 - 09:55 | Preparation and luminescent properties of Li _{2.06} Nb _{0.18} Ti _{0.76} O ₃ : Eu ³⁺ phosphors Qun Zeng, South China Normal University. MC: Lingmin Yao |
| 09:55 – 10:10 | Fiber-based energy harvesting and storage devices for smart garments Wenjie Mai, Jinan University. MC: Lingmin Yao |
| 10:10 – 10:25 | Novel Design of Highly Oriented Titanate-based Nanorod Array and Its Application in Nanocomposite Capacitors Lingmin Yao, Guangzhou University. MC: Lingmin Yao |
| 10:25 – 10:35 | Contributed presentations |
| | Constructing a multichannel low-cost laser scanning microscope for luminescence and transmission/reflection imaging Albert Wai Kit Lau, Hong Kong University of Science and Technology. MC: Lingmin Yao |
| 10:35 – 11:00 | Tea/coffee break, poster, discussion @E4 G/F Lobby |
| 11:00 – 11:20 | Keynote presentation |
| | Neutron Spin excitations in superconducting Ba(Fe _{0.926} Co _{0.074}) ₂ As ₂ Haifeng Li, University of Macau. MC: Francis Chi-Chung Ling |
| 11:20 – 11:50 | Invited presentations |
| 11:20 – 11:35 | Fabrication of transparent Tb ₂ Al ₅ O ₁₂ ceramics by hot isostatic pressing sintering Yinzhen Wang, South China Normal University. MC: Francis Chi-Chung Ling |
| 11:35 – 11:50 | Approaching the capacity limit of lithium cobalt oxide in lithium ion batteries via lanthanum and aluminum doping Qi Liu, City University of Hong Kong. MC: Francis Chi-Chung Ling |
| 11:55 – 14:00 | Buffet Lunch @W21-G019 |

Concurrent session 7: Scattering, Particle, Nuclear & Plasma Physics

| 14:00 – 18:00 | Concurrent session 7: Scattering, Particle, Nuclear & Plasma Physics |
|---------------|---|
| Venue: | Anthony Lau Building (E4), E4-3056 |
| Chairpersons: | 1. Hui Liu 2. Jenny Hiu Ching Lee 3. Wei Wang |
| 14:00 – 14:50 | Keynote presentation |
| 14:00 – 14:25 | Nuclear Structure and Correlations: From Stable to Unstable Nuclei Jenny Hiu Ching Lee, The University of Hong Kong. MC: Hui Liu |
| 14:25 – 14:50 | Higher order corrections to the Chiral Magnetic Effect Hui Liu, Jinan University. MC: Jenny Hiu Ching Lee |
| 14:50 – 15:35 | Invited presentations |
| 14:50 – 15:05 | Physics study with accelerator neutrino oscillation and scattering Jian Tang, Sun Yat-Sen University. MC: Jenny Hiu Ching Lee |
| 15:05 – 15:20 | Hadronic weak decay of the lightest charmed baryon Fanrong Xu, Jinan University. MC: Jenny Hiu Ching Lee |
| 15:20 – 15:35 | Beta-decay studies of extremely proton-rich nuclei from Mg to S Xinxing Xu, The University of Hong Kong. MC: Jenny Hiu Ching Lee |
| 15:35 – 16:05 | Contributed presentations |
| 15:35 – 15:45 | Shape coexistence in neutron-rich ^{69,71,73} Co nuclei Taras Lokotko, The University of Hong Kong. MC: Hui Liu |
| 15:45 – 15:55 | Cluster structure of neutron-rich Beryllium isotopes Pengjie Li, The University of Hong Kong. MC: Hui Liu |
| 15:55 – 16:05 | Beta decay of ²⁶ P Pengfei Liang, The University of Hong Kong. MC: Hui Liu |
| 16:05 – 16:30 | Tea/coffee break, poster, discussion @E4 G/F Lobby |
| 16:30 – 16:55 | Keynote presentation |
| | The High-Energy Physics Experiments in the Greater Bay Area Wei Wang, Sun Yat-Sen University. MC: Hui Liu |
| 16:55 – 17:40 | Invited presentations |
| 16:55 – 17:10 | Cosmic Inflation as a Particle Collider Yi Wang, Hong Kong University of Science and Technology. MC: Wei Wang |
| 17:10 – 17:25 | The potentials of reactor neutrino experiments Steven (Chan-Fai) Wong, Sun Yat-Sen University. MC: Wei Wang |
| 17:25 – 17:40 | Anomaly-free chiral fermions, neutrino masses, and Dark Matter Chi-Fong Wong, Macau University of Science and Technology. MC: Wei Wang |
| 17:40 – 18:00 | Contributed presentations |
| 17:40 – 17:50 | β-delayed neutron emission of extremely neutron-rich nuclei relevant to A=130 r-process abundance peak Jiajian Liu, The University of Hong Kong. MC: Wei Wang |
| 17:50 – 18:00 | Leptoquark induced flavor changing decays of Z boson and top quark Mingxian Wang, Jinan University. MC: Wei Wang |
| 18:05 | Banquet Dinner @Oasis, Galaxy Macau (Bus pick-up point & time: E4 G/F Lobby @ 18:05) |

Concurrent session 8: Quantum & Statistical Physics

| 14:00 – 18:05 | Concurrent session 8: Quantum & Statistical Physics |
|---------------|--|
| Venue: | Anthony Lau Building (E4), E4-3063 |
| Chairpersons: | 1. Guanghui Hu 2. Huashan Li |
| 14:00 – 14:25 | Keynote presentation |
| | Complexity Science in a Quantum World Mile Gu, Nanyang Technological University. MC: Guanghui Hu |
| 14:25 – 15:40 | Invited presentations |
| 14:25 – 14:40 | Ultimate precision limit for quantum metrology Haidong Yuan, The Chinese University of Hong Kong. MC: Guanghui Hu |
| 14:40 – 14:55 | One-Shot Detection Limits of Quantum Illumination with Discrete Signals Man-Hong Yung, Southern University of Science and Technology. MC: Guanghui Hu |
| 14:55 – 15:10 | Simplified Gentlest Ascent Dynamics for Transition State with Application to Allen-Cahn in Presence of Shear Xiang Zhou, City University of Hong Kong. MC: Guanghui Hu |
| 15:10 – 15:25 | Density Functional Theory: Two Cases Study Jingrun Chen, Soochow University. MC: Guanghui Hu |
| 15:25 – 15:40 | An efficient steady-state solver for Boltzmann equation with applications to microflow simulation Zhicheng Hu, Nanjing University of Aeronautics and Astronautics. MC: Guanghui Hu |
| 15:40 – 16:00 | Contributed presentations |
| 15:40 – 15:50 | Optimal operation for the triple-quantum-dot spin qubits Chengxian Zhang, City University of Hong Kong. MC: Guanghui Hu |
| 15:50 – 16:00 | A tunable charge qubit based on barrier-controlled triple quantum dots Guo Xuan Chan, City University of Hong Kong. MC: Guanghui Hu |
| 16:00 – 16:30 | Tea/coffee break, poster, discussion @E4 G/F Lobby |
| 16:30 – 16:55 | Keynote presentation |
| | Gibbs partitions, Mittag Leffler functions and waiting time models Lancelot F. JAMES, Hong Kong University of Sciences and Technology. MC: Huashan Li |
| 16:55 – 17:55 | Invited presentations |
| 16:55 – 17:10 | On efficient numerical simulations of time-dependent density functional theory Guanghui Hu, University of Macau. MC: Huashan Li |
| 17:10 – 17:25 | Averaging principle for one dimensional stochastic Burgers equations Xiaobin Sun, Jiangsu Normal University. MC: Huashan Li |
| 17:25 – 17:40 | Asymptotics for stochastic reaction-diffusion equation driven by subordinate Brownian motion Ran Wang, Wuhan University. MC: Huashan Li |
| 17:40 – 17:55 | Topological states and cotranslational symmetry in strongly interacting multi-particle systems Chaohong Li, Sun Yat-Sen University. MC: Huashan Li |
| 17:55 – 18:05 | Contributed presentations |
| | Automatic spin-chain learning to explore quantum speed limit Xiaoming Zhang, City University of Hong Kong. MC: Huashan Li |
| 18:10 | Banquet Dinner @Oasis, Galaxy Macau (Bus pick-up point & time: E4 G/F Lobby @ 18:10) |

| 09:00 – 12:05 | Concurrent session 8: Quantum & Statistical Physics |
|---------------|--|
| Venue: | Anthony Lau Building (E4), E4-3063 |
| Chairpersons: | 1. Lihu Xu 2. Chunxiong Zheng |
| 09:00 - 09:50 | Keynote presentation |
| 09:00 – 09:25 | Extended WKB analysis for the generalized Schrodinger equations in the semi-classical regime Chunxiong Zheng, Tsinghua University. MC: Lihu Xu |
| 09:25 – 09:50 | Quantum Monte Carlo study of Disordered Spin Systems Daoxin Yao, Sun Yat-Sen University. MC: Lihu Xu |
| 09:50 – 10:20 | Invited presentations |
| 09:50 – 10:05 | Approximation of heavy tailed distributions Lihu Xu, University of Macau. MC: Chunxiong Zheng |
| 10:05 – 10:20 | Integrated quantum interface of ion trap and parabolic mirror Zhao Wang, Sun Yat-Sen University. MC: Chunxiong Zheng |
| 10:20 – 10:30 | Contributed presentations |
| | Enhancing Synchronization Stability in Kuramoto Model in Complex Networks against Fluctuations by Optimal Resource Adjustment Kin Yau Tsang, Hong Kong University of Science and Technology. MC: Chunxiong Zheng |
| 10:30 – 10:50 | Tea/coffee break, poster, discussion @E4 G/F Lobby |
| 10:50 – 11:15 | Keynote presentation |
| | Multi-photon processes on superconducting qubit circuits Hou Ian, University of Macau. MC: Lihu Xu |
| 11:15 – 11:45 | Invited presentations |
| 11:15 – 11:30 | Entanglement detection by the uncertainty relation Yuan-Yuan Zhao, Sun Yat-Sen University. MC: Lihu Xu |
| 11:30 – 11:45 | Random Active Path Model of Deep Neural Networks with Diluted Binary Synapses Haiping Huang, Sun Yat-Sen University. MC: Lihu Xu |
| 11:45 – 12:05 | Contributed presentations |
| 11:45 – 11:55 | An efficient and adaptive finite element method for Kohn—Sham equation Yang Kuang, University of Macau. MC: Lihu Xu |
| 11:55 – 12:05 | An asymptotic-based adaptive finite element method for Kohn-Sham equation Yedan Shen, University of Macau. MC: Lihu Xu |
| 12:10 – 14:00 | Buffet Lunch @W21-G019 |

Poster program

Posters will be on display for the duration of the conference. Authors will be at their poster-board during tea/coffee breaks to discuss their research with interested delegates.

| Poster | Poster title and author |
|---------------|--|
| board # P1 | The Wave-packet Impact on Active and Sterile Neutrino Oscillations in Reactor Neutrino Experiments Steven (Chan-Fai) Wong, School of Physics, Sun Yat-Sen University. |
| P2 | Leptoquark induced flavor changing decays of Z boson and top quark Sam Ming-Yin Wong* and Fanrong Xu, Jinan University. |
| Р3 | An apparatus for studying Feshbach resonance in ultracold 6Li degenerate Fermi gas Xiao Zhang, School of Physics and Astronomy, Sun Yat-Sen University. |
| P4 | A New Magnetic Field system for Studying Narrow Feshbach of ultracold 6Li Fermi Gases Jianxiong Fang, School of Physics and Astronomy, Sun Yat-Sen University. |
| P5 | Optical path design for trapping ¹⁷¹ Yb ⁺ ions experiment Tishuo Wang, School of Physics and Astronomy, Sun Yat-Sen University. |
| P6 | Frequency stabilization of 369 nm and 935 nm for trapping ¹⁷¹ Yb ⁺ ions Jiangyong Hu, School of Physics and Astronomy, Sun Yat-Sen University. |
| P7 | Ion traps in harmonic and anharmonic potential Xinxin Rao, School of Physics and Astronomy, Sun Yat-Sen University. |
| P8 | Conductance Switch on Molecular Wheels Induced by Electric Field and Controlled by Molecular Rotation Xiaobo Li, Hong Kong Baptist University. |
| P9 | Benzo[d]thiazol-3-ium contained red emitting probe for peroxynitrite sensing Jingyun Tan, University of Macau. |
| P10 | Machine learning with quantum computation Long Hin Li, The University of Hong Kong. |
| P11 | Solar vapor desalination of seawater Yangshi Jin*, Chu Leung Chan and Xuming Zhang, The Hong Kong Polytechnic University. |
| P12 | Investigation on Tin-based anode materials for Na ⁺ ion battery by in-situ TEM Cheuk Ho Chan* and Ji-Yan Dai, The Hong Kong Polytechnic University. |
| P13 | Hydrostatic pressure effect on T_c of Mo ₈ Ga ₄₁ up to 72 kbar Wei Zhang ^{1,*} , King Yau Yip ¹ , Yuet Ching Chan ¹ , Chia Nung Kuo ² , Chin Shan Lue ² , Kwing To Lai ¹ , and Swee Kuan Goh ¹ 1. The Chinese University of Hong Kong 2. National Cheng Kung University |
| P14 | Formation and Coalescence of Binary Black Holes in Active Galactic Nuclei: I - Capture of Nuclear Cluster Stars by Accretion Disks Xiaojia Zhang ^{1,*} , Zhuoxiao Wang ² , Douglas N. C. Lin ^{2,3,4} , and Shude Mao ^{2,4,5} 1. The University of Hong Kong 2. Tsinghua University 3. University of California, Santa Cruz 4. National Astronomical Observatories of China 5. University of Manchester |

| Poster board # | Poster title and author |
|-------------------|---|
| P15 | Bose Polarons in the Heteronuclear Bose-Bose Mixture Lintao Li*, Zhichao Guo and Dajun Wang, The Chinese University of Hong Kong. |
| P16 | Realistic implementation of all-photonic quantum repeater Ming Lai Chan, The University of Hong Kong. |
| P17 | Quantum droplet in a mixture of Rb-Na Bose-Einstein condensates Zhichao Guo*, Lintao Li and Dajun Wang, The Chinese University of Hong Kong. |
| P18 | Exploration of the Energetic Material Ammonium Perchlorate at high pressures: Combined Raman Spectroscopy and X-ray Diffraction Study Lei Kang and Qingguang Zeng, Wuyi University. |
| P19 | The scattering mechanism of ZnSnN ₂ Xing-Min Cai, Bo Wang and Fan Ye, Shenzhen University. |
| P20 | MRT OBSERVATIONS ON H212CO AND H213CO TOWARD GALACTIC MOLECULAR CLOUDS Yaoting Yan, Jiangshui Zhang and Christian Henkel, Guangzhou University. |
| P21 | Resolution criterion based on the nth-order derivative of the image that exceed the sparrow criterion Yanming Gao and Xiangyang Yu, Sun Yat-Sen University. |
| P22 | Imaging through a thin scattering layer by wavelength-depth-matching method Junpeng Xie, Sun Yat-Sen University. |
| P23 | Zero-Reflection effect Based on Graphene-dielectric Metamaterials Wenyao Liang, South China University of Technology. |
| P24 | From Equilibrium to Wave Turbulence by Shaking in Holographic Superfluid Shanquan Lan, Hong Liu, Yu Tian and Hongbao Zhang, Lingnan Normal University. |
| P25 | Joule-Thomson expansion of d-dimensional charged AdS black holes Jie-Xiong Mo*, Gu-Qiang Li, Shan-Quan Lan and Xiao-Bao Xu, Lingnan Normal University. |
| P26 | Photocatalytic properties of Bi ₂ O ₃ /Bi ₂ VO _{5.5} laminated composite films Wei Xie, Changwei Zou and Guiang Liu, Lingnan Normal University. |
| P27 | Extraction of cluster ion beams and application in synthesis of few-layer graphene on Ni/SiO ₂ /Si substrate Zesong Wang, Rui Zhang, Canxin Tian, Changwei Zou and Dejun Fu, Lingnan Normal University. |
| P28 | Synthesis and Microwave Absorption Enhancement of Yolk–Shell Carbon Microspheres Chunhua Tian and Jun Quan*, Lingnan Normal University. |
| P29 | Chaoticons in highly nonlocal nonlinear optical media Lanhua Zhong, Lingnan Normal University. |
| P30 | Microscopic piezoelectric theory of symmetry-broken sp²-bonded hexagonal 2D crystals Zongtan Wang, Yunhua Wang,* Jie Tan, Yulan Liu, and Biao Wang,* Sun Yat-Sen University |
| P31 | High-sensitivity topological insulator strain sensor Lingzhi Li, Yunhua Wang,* Zongtan Wang, Yulan Liu, and Biao Wang,* Sun Yat-Sen University |
| P32 | Searching for Soft Pulsars with the Fermi Large Area Telescope Brent Limyansky and P. M. Saz Parkinson, The University of Hong Kong |
| P33 | Measurement of microwave-induced strain in a metallic parallel-plate cavity M. Wang ^{1,2} , S. Wang ² , Q. Zhang ^{1,2} , C.T. Chan ² , H.B. Chan ¹ ¹Department of Physics, The Hong Kong University of Science and Technology, Clear Water Bay, Kowloon, Hong Kong ²William Mong Institute of Nano Science and Technology, The Hong Kong University of Science and Technology, Clear Water Bay, Hong Kong, China |

Useful Information

WIFI username: guest2866 WIFI password: synp1772

Transport to and from the campus of University of Macau



Conference Venues



Conference Website





Conference Photo Download [only available during 1-7 August 2018]



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2018 Joint Annual Conference of Physical Societies in Guangdong-Hong Kong-Macao Greater Bay Area

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(Sunday, 08:30 am - 12:30 pm, July 29, 2018)

【百变澳门-迷幻之都】澳门这个『东方拉斯韦加斯』、丰富的旅游资源令人刮目相看。穿梭于大街小巷、您随时能看到历史遗留下来的痕迹、彷佛置身欧洲南部小镇一般。著名的小吃令人垂涎。夜幕低垂、霓虹灯闪烁的大型酒店、娱乐场、夜总会处处林立、光影交织出神秘的面纱、迎接着您来"彻夜狂欢"!





【大三巴牌坊】是圣保禄教堂的前壁遗迹,是澳门著名的名胜。教堂原本由一名意大利籍的耶稣会神父设计,由日本工匠以鬼斧神工的技术协助建成。1602 年奠基,1637 年全部竣工。这间教堂与火结下不解之缘,从其雏型起始,至现时仅存的前壁牌坊,先后经历三次大火,屡焚屡建,是一所活生生的历史见证。

【妈阁庙】是澳门最著名的名胜古迹之一,在至今已逾五百年,是澳门三大禅院中最古者。妈阁庙原称【妈祖阁】,在澳门东南方,俗称【天后庙】,建于一四八八年,正值明朝。背山面海,沿崖建筑,古木参天,风光优美。整座庙宇包括大殿、弘仁殿、观音阁等四座主要建筑,石狮镇门、飞檐凌空,是一座富有中国文化特色的古建筑。

【澳门渔人码头】是澳门首个以主题式设计的综合娱乐旅游新景点,总投资约达港币十九亿元。座落于外港新填海区海岸,占地超过93,000平方米,集娱乐、购物、饮食、酒店、游艇码头及会展设施于一体,结合不同建筑特色及中西文化,务求使游客突破地域界限,体验不同地区的感受。

【金莲花广场】1999年12月20日,中华人民共和国恢复对澳门行使主权,并成立澳门特别行政区;中华人民共和国中央人民政府有见于这个国家(或是国际)级别的大事,因而向澳门致送了一尊名为"盛世莲花"的雕塑,分别大、小各一件,寓意澳门继续繁荣昌盛。这跟1997年香港主权移交时致送给香港特别行政区的永远盛开的紫荆花寓意一样。盛世莲花雕塑在1999年12月17日由工程人员安装在广场上;12月20日中午由主管澳门事务的中华人民共和国国务院副总理钱其琛主持揭幕仪式。