

## Parallel Session: Atomic and Molecular Physics & Optics

Afternoon Session:

Date: October 21<sup>st</sup>

| chair       | Kuijuan Jin                                               |                                                                                                                  |
|-------------|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| 14:00-14:25 | Xiaodong Cui<br>The University of Hong Kong               | Exciton polarization in 2D TMDs<br>(Invited)                                                                     |
| 14:25-14:50 | Zhigang Chen<br>Nankai University                         | Empowering Topological Photonics for OAM Manipulation<br>(Invited)                                               |
| 14:50-15:05 | Kai Dieckmann<br>National University of Singapore         | Rotational Spectroscopy and Magic Optical Lattices for Ultracold LiK Ground State Molecules<br>(Invited)         |
| 15:05-15:30 | Chuanshan Tian<br>Fudan University                        | Interface Nonlinear Optical Spectroscopy in an Emerging Spectral Regime<br>(Invited)                             |
| 15:30-16:00 | Break                                                     |                                                                                                                  |
| chair       | Chuanshan Tian                                            |                                                                                                                  |
| 16:00-16:25 | Qinghai Song<br>Harbin Institute of Technology (Shenzhen) | Metalasers with arbitrarily shaped wavefront<br>(Invited)                                                        |
| 16:25-16:50 | Yao Chen<br>University of Science and Technology of China | Quantum Manipulation with Ultracold Atoms<br>(Invited)                                                           |
| 16:50-17:05 | Jiafang Li<br>Beijing Institute of Technology             | Deformable optical nanostructures and applications<br>(invited)                                                  |
| 17:05-17:20 | Pua Chang Hong<br>Tunku Abdul Rahman University           | Numerical Simulation of the Response of Erbium-Doped Fibre Ring Laser (EDFRL) under Loss Modulation<br>(invited) |
| 17:20-17:35 | Shuqi Chen<br>Nankai University                           | TBA                                                                                                              |

Morning Session:

Date: **October 22<sup>nd</sup>**

| chair       | Xiaojun Liu                                                     |                                                                                                              |
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| 10:50-11:15 | Yuya Morimoto<br>Institute of Physical and Chemical<br>Research | Attosecond electron beams<br>for ultrafast molecular<br>imaging<br>(invited)                                 |
| 11:15-11:30 | Kaihui Liu<br>Peking University                                 | Optical crystals of 2D<br>materials<br>(invited)                                                             |
| 11:30-11:45 | Chen Ge<br>Institute of Physics, Chinese<br>Academy of Sciences | Interface-engineered non-<br>volatile visible-blind<br>photodetector for in-sensor<br>computing<br>(invited) |
| 11:45-12:10 | Ruwen Peng<br>Nanjing University                                | Matte surfaces with<br>broadband transparency<br>(Invited)                                                   |

Afternoon Session:

Date: **October 22<sup>nd</sup>**

| chair       | Peixiang Lu                                                                                                              |                                                                                                                                               |
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| 14:00-14:25 | Yutong Li<br>Institute of Physics, Chinese<br>Academy of Sciences                                                        | Generation and<br>applications of intense<br>laser-driven terahertz<br>radiation<br>(invited)                                                 |
| 14:25-14:50 | Satoshi Nihonyanagi<br>Institute of Physical and Chemical<br>Research                                                    | Ultrafast Vibrational<br>Dynamics of Water at<br>Interfaces<br>(invited)                                                                      |
| 14:50-15:05 | Yuxi Fu<br>Xi'an Institute of Optics and<br>Precision Mechanics of Chinese<br>Academy of Sciences                        | The quantum interference<br>in electron recombination<br>processes of highly<br>charged ions/ Intense<br>attosecond light source<br>(invited) |
| 15:05-15:30 | Xiaojun Liu<br>Innovation Academy for Precision<br>Measurement Science and<br>Technology, Chinese Academy of<br>Sciences | Extreme-ultraviolet (XUV)<br>frequency comb and its<br>applications<br>(Invited)                                                              |

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| 15:30-16:00 | Break                                                                   |                                                                                                   |
| chair       | Leong Chuan Kwek                                                        |                                                                                                   |
| 16:00-16:25 | Shijie Xu<br>Fudan University                                           | Two-level quantum optics of the elementary excitations in few-layer WSe2 semiconductors (invited) |
| 16:25-16:50 | Peixiang Lu<br>Huazhong University of Science and Technology            | Strong-field ultrafast optics -- Attosecond Control and Measurement (invited)                     |
| 16:50-17:05 | Rainer Dumke<br>Nanyang Technological University                        | Atomic Quantum Sensing: Portable Gravimetry and Accelerometry (invited)                           |
| 17:05-17:20 | Zhe Yuan<br>Fudan University                                            | Magnetic damping in low-dimensional system: Quantum oscillation and symmetry constraint (invited) |
| 17:20-17:35 | Xiang Gao<br>Institute of Applied Physics and Computational Mathematics | The quantum interference in electron recombination processes of highly charged ions (invited)     |

Afternoon Session:

Date: **October 23<sup>rd</sup>**

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| chair       | Zengxiu Zhao                                               |                                                                                  |
| 14:00-14:25 | Blair Blakie<br>University of Otago                        | The Emergence of Supersolidity in Dipolar Quantum Gases (Invited)                |
| 14:25-14:50 | Ye Tian<br>Shanghai Institute of Optics and Fine Mechanics | Ultrafast Control of Polar Crystals using Terahertz Radiation (invited)          |
| 14:50-15:05 | Yap Seong Shan<br>Xiamen University Malaysia               | Effects of laser beam size in ultrafast laser filamentation of ethanol (invited) |
| 15:05-15:30 | Jianing Chen<br>Institute of Physics, Chinese              | Manipulate Transient Hyperbolic Plasmons in                                      |

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|             | Academy of Sciences                                               | Semiconductors<br>(invited)                                                                                                                   |
| 15:30-16:00 | Break                                                             |                                                                                                                                               |
| chair       | Ye Tian                                                           |                                                                                                                                               |
| 16:00-16:25 | Sadiq Rangwala<br>Raman Research Institute                        | Imaging and studying the<br>dynamics of octupolar<br>structural transitions in<br>trapped-ion clusters<br>(invited)                           |
| 16:25-16:50 | Zengxiu Zhao<br>National University of Defense<br>Technology      | Coherent emission and<br>attosecond absorption of<br>molecules driven by strong<br>laser fields<br>(invited)                                  |
| 16:50-17:05 | Haizhong Guo<br>Zhengzhou University                              | Optical property of halide<br>double perovskites tuned<br>by external fields<br>(invited)                                                     |
| 17:05-17:20 | Raymond Ooi<br>University of Malaya                               | High Performance<br>Quantum Optical Memory<br>for Long-Distance<br>Quantum Communication<br>(invited)                                         |
| 17:20-17:35 | Erjia Guo<br>Institute of Physics, Chinese<br>Academy of Sciences | TBA                                                                                                                                           |
| 17:35-17:50 | Chun Chen<br>Shanghai Jiao Tong University                        | Many-body localization in a<br>disordered Bose-Hubbard<br>model: Entanglement<br>dynamics and particle<br>statistics<br>(invited/contributed) |

Morning Session:

Date: **October 24<sup>th</sup>**

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| chair     | Ya Cheng                                 |                                                                                                                                 |
| 9:00-9:25 | Dong Wu<br>Shanghai Jiao Tong University | Multi-scale, multi-<br>component, and multi-<br>physics kinetic modeling of<br>high-energy-density laser<br>fusion<br>(invited) |

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| 9:25-9:40  | Taro Sekikawa<br>Hokkaido University | New Insight into chemical reaction dynamics using high harmonic pulses in photoelectron spectroscopy<br>(invited) |
| 9:40-9:55  | Weitao Liu<br>Fudan University       | Nonlinear Optical Studies on Low-Dimensional and Interface Systems<br>(invited)                                   |
| 9:55-10:20 | Xiulai Xu<br>Peking University       | Strong coupling between few/single excitons and plasmonic nanocavity<br>(invited)                                 |