

# iSCAT 2025

## Special Symposium on Interferometric Scattering Microscopy

📅 April 17, 2025

📍 Dr. Poe Lecture Hall, Institute of Atomic and Molecular Sciences, Academia Sinica, Taipei, Taiwan

### Program

|                                     |                                                                                                                                                               |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9:00 - 9:05                         | Opening Remarks                                                                                                                                               |
| Session Chair : Marek Piliarik      |                                                                                                                                                               |
| 9:05 - 9:30                         | Near-field Scattering Microscopy - From information theory to experiment<br><b>Thomas Juffmann</b> (University of Vienna)                                     |
| 9:30 - 9:45                         | Enhanced interferometric imaging by rotating contrast scattering microscopy<br><b>Kishwar Iqbal</b> (University of Oxford)                                    |
| 9:45 - 10:10                        | Iontronic scattering microscopy<br><b>Sanli Faez</b> (Utrecht University)                                                                                     |
| 10:10 - 10:40                       | Group photos / Coffee Break / Discussion                                                                                                                      |
| Session Chair : Jaime Ortega Arroyo |                                                                                                                                                               |
| 10:40 - 11:05                       | Advances in single-molecule iSCAT: from tracking biomolecular dynamics to nanoscopic resolution<br><b>Marek Piliarik</b> (Czech Academy of Sciences)          |
| 11:05 - 11:20                       | Towards Shape-sensitive Mass Photometry<br><b>Jack Bardzil</b> (University of Oxford)                                                                         |
| 11:20 - 11:45                       | Label-free interferometric imaging of nanoscopic cellular deformations associated with neural activity<br><b>Tong Ling</b> (Nanyang Technological University) |
| 11:45 - 12:00                       | Sensitive particle tracking and analysis using iSCAT<br><b>Kiarash Kasaian</b> (Max Planck Institute for the Science of Light)                                |
| 12:00 - 13:30                       | Lunch                                                                                                                                                         |
| Session Chair : Sanli Faez          |                                                                                                                                                               |
| 13:35 - 14:00                       | Holography, taking interferometric scattering to the third dimension<br><b>Matz Liebel</b> (Vrije Universiteit Amsterdam)                                     |
| 14:00 - 14:15                       | Advance single particle tracking with combined iSCAT and fluorescence observations<br><b>Giovanni De Angelis</b> (Leibniz Institute of Photonic Technology)   |
| 14:15 - 14:40                       | How to use surface chemistry, computational imaging and partial coherence to improve iSCAT<br><b>Jaime Ortega Arroyo</b> (ETH Zürich)                         |
| 14:40 - 15:10                       | Coffee Break / Discussion                                                                                                                                     |
| Session Chair : Matz Liebel         |                                                                                                                                                               |
| 15:10 - 15:35                       | Illuminating the nanoscale: iSCAT imaging of single nanoparticles and cellular transport<br><b>Seok-Cheol Hong</b> (Korea University)                         |
| 15:35 - 16:00                       | Single-molecule applications enabled by actively controlled sampling<br><b>Edward Grant</b> (University of British Columbia)                                  |
| 16:00 - 16:15                       | Closing Remarks                                                                                                                                               |
| 16:20 - 17:40                       | Lab tour                                                                                                                                                      |