

2025 IAMS Academic Advisory Committee Meeting
February 25, 2025 (Tuesday)

| | |
|--|--|
| 9:00-9:20 | Greeting from Sinica by VP Chou Closed-door meeting by AAC members Venue: Room 101 |
| Session I (9:20-12:00) Chair: Jer Lai Kuo | |
| 9:20-10:00 | IAMS Overview by Director Wei Venue: Dr. Poe Lecture Hall (1F) |
| 10:00-10:30 | PI Talk 1- Pei-Ling Luo High-resolution spectroscopy and kinetic studies of key atmospheric free radicals with time-resolved dual-comb spectroscopy |
| 10:30-11:00 | Break |
| 11:00-11:30 | PI Talk 2- Chi-Kung Kenny Ni Carbohydrate structural determination, from quantum chemistry calculations and gas phase reaction dynamics to glycobiology |
| 11:30-12:00 | PI Talk 3- Liang-Yan Hsu Generalization of Chemical Physics Theories based on Quantum Electrodynamics |
| 12:00-13:30 | Lunch |

| Session II (13:30-16:30) Chair by CL Hsieh | |
|---|--|
| 13:30-14:00 | PI Talk 4- Yang-hao Chan Excitonic effects in 2D materials from first-principle study |
| 14:00-14:30 | PI Talk 5- Chia-Lung Hsieh Interferometric scattering (iSCAT) microscopy: a label-free approach to visualizing nanoscopic cellular organizations and dynamics |
| 14:30-15:00 | PI Talk 6- Charles Pin-Kuang Lai From Cells to Systems: Multi-resolution Bioimaging of Extracellular Vesicles |
| 15:00-15:30 | Break |
| 15:30-16:00 | PI Talk 7- Hsiang-Hua Jen Photon-mediated dipole-dipole interactions as a resource for quantum science and technology |
| 16:00-16:30 | PI Talk 8- Ying-Cheng Chen Quantum Memory and Quantum Computing based on Neutral Atoms |
| Session III (16:40-17.30) Chair by Liang-Yan Hsu | |
| 16:40-17.30 | All Young Faculty meeting with AAC member(助/副) |
| 17:45 | Buffet Dinner at IAMS |

February 26, 2025 (Wednesday)

9:00 - 11:00

Three parallel sessions

Please feel free to attend the session that interests you the most.

You are also welcome to switch sessions at any time if you wish.

Session B will finish earlier than the other two at 10:20.

Session A

Advanced Materials and Surface Science

Chair: Kuei-Hsien Chen

Time: 9:00-10:20 / Venue: Dr. Poe Lecture Hall (1F)

| | |
|-------------|---|
| 9:00-9:20 | Kuei-Hsien Chen Advanced materials for sustainable energies |
| 9:20-9:40 | Cheng-Tien Chiang Development of two-photon photoemission on transition metal dichalcogenides |
| 9:40-10:00 | Ya-Ping Hsieh Realizing unique 2D materials through confined reactions |
| 10:00-10:20 | Wei-Hua Wang van der Waals heterostructures for exploring electronic and optical properties of 2D semiconductors |
| 10:20-10:40 | Szu-yuan Chen Intermediate-temperature protonic solid oxide fuel cells based on PLD-prepared functional layers and interlayers |

| | |
|---|--|
| | on optimally tailored anode substrate |
| 10:40-11:00 | Ching-Ming Wei Exploring structures and dynamics of materials with mobile atoms using machine-learning interatomic potentials |
| Session B Atomic Physics and Optical Science (Atomic, molecular, and optical physics) Chair: Ying-Cheng Chen Time: 9:00-10:20 / Venue: 209 | |
| 9:00-9:20 | Ming-Shien Chang Quantum simulations, computing, and sensing with atomic spins |
| 9:20-9:40 | Yu-Ju Lin Synthetic azimuthal gauge potentials for spinor Bose-Einstein condensates |
| 9:40-10:00 | Chun-Chia Chen Unlocking Precision: Advanced Control of Alkaline-earth atoms for Quantum Sensing |
| 10:00-10:20 | Shayne Bennetts Towards Hybrid Atom-Nanophotonics for Quantum Technology and Superradiant Active Optical Clocks |

Session C

Biophysics and Bioanalytical Technology & Chemical Dynamics and Spectroscopy

Chair: Chia-Lung Hsieh

Time: 9:00-11:00 Venue: 311

| | |
|-------------|--|
| 9:00-9:20 | Huan-Cheng Chang Sensing and imaging EUV radiation using diamonds with nitrogen-vacancy centers |
| 9:20-9:40 | Ching-Wei Lin Cytometry in the short-wave infrared |
| 9:40-10:00 | Dharma Yu Exploring dynamics in proteins and materials: insights from NMR Spectroscopy |
| 10:00-10:20 | Yuh-Lin Wang Rapid Universal Antimicrobial Susceptibility Testing for Sepsis Patients' Blood-Culture Bacteria before Species Identification |
| 10:20-10:40 | Jer-Lai Kuo Linking Structures and Vibrational Hamiltonians of Molecular Systems via Ab-initio Algorithms |
| 10:40-11:00 | Jim Lin Measure the photodissociation cross section of Criegee intermediate without knowing the concentration |

| | | | |
|-------------|--|--|---|
| 11:00-11:20 | Break | | |
| 11:20-12:20 | Individual PI meeting with individual Advisor (To be arranged: 20-30 minutes each meeting) | | |
| | Akimoto- Rm209 11:20 Luo 11:40 Jim | Austin- 122 11:20 Dharma 11:50 Chia-Lung | Chandler- Rm113 11:20 Jer-Lai 11:40 Luo |
| | Cirac- Rm127 10:20 Richard Jen 11:20 Chun-Chia 11:40 Bennetts 12:00 Ming-Shien | Dai-Rm311 11:20 Chia-Lung 11:50 Ching-Wei | Lebrilla-Rm201 11:20 Kenny 11:40 Chun-Chia |
| | Louie- Rm 118 11:20 CT Chiang 11:40 YP + Wei H 12:00 Yang-Hao | Schatz- Rm369 11:20 Ching-Wei 11:50 Liang-Yan | Ron Shen- Rm121 11:20 CMW 12:00 Luo |
| 12:30-13:00 | Photo Shoot Session Taking photo in front of Main Entrance | | |
| 13:00-14:00 | Lunch / Venue: 401 | | |
| 14:00-14:30 | Director Wei meeting with Advisory Committees | | |
| 14:30-17:30 | Advisory Committee Meeting | | |
| 17:30-18:00 | Closing by VP Mei-Yin Chou | | |
| 19:00 | Banquet at Peng Yuan (297 Zhong Xiao E. Rd. Sec. 5) | | |