

Program

November 3, 2024 (Sunday)

| | Registration Open from 9:00-18:00 Location: Outside 1F 102, 1F 105, and 3F South Lounge | | | | | | | | | | | | |
|-------------|---|-------------|-------------------------------|--------------|-------------------------------------|--|--|--|--|--|--|--|--|
| Room | 1F 105 | 3] | F South Lounge | | 1F 102 | | | | | | | | |
| | Small-angle Scattering for everyone: how to unlock | | | 9:15-9:25 | Welcome canSAS | | | | | | | | |
| 9:30-10:30 | the power of this ancient | | | 9:25-9:45 | canSAS intro | | | | | | | | |
| | technique Brian Richard Pauw | | A school on the use of SAS | 9:45-10:25 | Working Group Status Updates | | | | | | | | |
| 10.30-10.40 | Break | 9:30-11:30 | to study biomacromolecular | 10:25-10:45 | Discussion | | | | | | | | |
| 10.30-10.40 | Dicak | | solutions | 10:45-11:15 | Break | | | | | | | | |
| | Introduction to modelling | | D. Franke and M. Graewert | 11:15-11:55 | Working Group Status Updates | | | | | | | | |
| 10:40-11:40 | of small-angle scattering data | | | 11:55-12:15 | Discussion | | | | | | | | |
| | Jan Skov Pedersen | | | 12:15-12:25 | Group Photo | | | | | | | | |
| 11 40 12 00 | ¥ 1 | 11 20 12 00 | X 1 | 12:25-12:40 | Lunch | | | | | | | | |
| 11:40-13:00 | Lunch | 11:30-13:00 | Lunch | 12:40-13:05 | Working LUNCH | | | | | | | | |
| | SasView - an interactivea | | A school on the use of | 13:05-14:05 | Topical Presentations/Discussions | | | | | | | | |
| 13:00-15:00 | tutorial and discussion | 13:00-15:00 | ATSAS | 14:05-14:35 | Break | | | | | | | | |
| | King | | D. Franke and M. Graewert | 14:35-15:05 | Topical Presentations/Discussions | | | | | | | | |
| | | | | 15:05-15:45 | Discussion | | | | | | | | |
| | | | | 15:45-16:00 | ADJOURN and breakout discussions | | | | | | | | |
| 16:00-18:00 | | | Reception (4F VIP Ro | 0 m) | | | | | | | | | |

November 4, 2024 (Monday)

| Room | 1F 101AB (Live streaming: 101CD) | | | | | | | | | | | | |
|-----------------|---|-----------------|---|-----------------|--|-----------------|--|-----------------|---|--|--|--|--|
| | | | | 1 | SAS2024 Opening Remarks | | | | | | | | |
| 8:30- 8:40 | | | | Welco | ome by U-Ser Jeng, SAS2024 Cha | ıir | | | | | | | |
| 8:40- 8:50 | | | | Welcome | by Chia-Hung Hsu, NSRRC Dir | ector | | | | | | | |
| | | | | | Plenary Session | | | | | | | | |
| 8:50- 9:20 | | | Dynam | ic mecha | (Chair: U-Ser Jeng) nisms of DNA repair: from SAX | XS to XF | EL | | | | | | |
| 9:20- 10:10 | (Chair: Hsiao-Ching Yang) Modeling X-ray and neutron scattering experiments with all-atom molecular simulations Jochen S Hub | | | | | | | | | | | | |
| 10:10- 10:20 | Group Photo and Break | | | | | | | | | | | | |
| Room | 1F 101AB | | 1F 101CD | 1F 102 | | | 1F 105 | | 3F South Lounge | | | | |
| BIO-1 | Structurally heterogeneous biomacromolecules (Chair: Jung-Hsin Lin/Hsiao-Ching Yang) | MOD-1 | Methods, SAS Database- application & standards (Chair: Guan-Rong Huang/Brian Richard Pauw) | COL-1 | Gel and Self-assembly (Chair: Ying-Huang Lai/Chien- Lung Wang) | IND-1 | Promotion of facility SAS to industry (Chair: Mau-Tsu Tang/Naoto Yagi) | INS-1 | Instrumentation and methodology-1 (Chair: Stephen King/Jan Ilavsky) | | | | |
| 10:20- 10:45 | Challenges For Protein Structure Prediction: Strained Geometry And Conformational Flexibility Susan Tsutakawa (Invited Speaker) | 10:20- 10:45 | Chasing Perfection: a holistic approach to materials science scattering experiments Brian Richard Pauw (Invited Speaker) | 10:20- 10:45 | Twin chain" PVA cryogels with controlled tortuosity as advanced materials for cleaning of works of art Piero Baglioni (Invited Speaker) | 10:20- 10:45 | Building a New Range of Facility SAS Application. A Challenge of NanoTerasu Light Source via Industry/Academy Coalition Masaki Takata (Invited Speaker) | 10:20- 10:45 | Advances in Sample Environments for Small- Angle Neutron Scattering Elliot Gilbert (Invited Speaker) | | | | |
| 10:45- 11:10 | Integrating SAXS and MD Simulations to Elucidate RNA Structural Dynamics Serdal Kirmizialtin (Invited Speaker) | 10:45- 11:00 | Empowering SAS scientists through online tutorials and simulation tools Andreas Haahr Larsen | 10:45- 11:00 | Dual-axis aligned thermophilic artificial water channels formed by water- induced self-assembly Chien-Lung Wang | 10:45- 11:10 | SANS Research Activities and Industry-user Promotion at J- PARC MLF Mitsuhiro Shibayama (Invited Speaker) | 10:45- 11:00 | The multi-slit very small angle neutron scattering instrument in China Spallation Neutron Source and its first experimental period He Cheng | | | | |

| Room | 1F 101AB | | 1F 101CD | | 1F 102 | | 1F 105 | 3F South Lounge | |
|-----------------|--|-----------------|--|-----------------|---|-----------------|---|------------------------|---|
| 11:10- 11:25 | Full structural models of dinucleotide repeats of single- and double-strand DNA revealed using small- and wide-Angle X- ray scattering with molecular dynamics simulation Johannes Allwang | 11:00- 11:15 | Towards Closing the Autonomous Loop at Multiple Facilities: Developing Web-based User Interfaces and Data Infrastructure for Autonomous Experiments and Automated Data Reduction Workflows Wiebke Koepp | 11:00- 11:15 | Enhanced Optical and Mechanical Properties by Designing Extractable Block Copolymer Nanocomposites Yeo-Wan Chiang | 11:10- 11:35 | Synchrotron Radiation for Industrial Applications - The Taiwan Chapter Mau-Tsu Tang (Invited Speaker) | 11:00- 11:15 | SANS at the ILL: A Cutting- edge Instrumental Suite for New Capacities and Capabilities dedicated to Science Jacques Jestin |
| 11:25- 11:35 | Break | 11:15- 11:25 | Break | 11:15- 11:25 | Break | 11:35- 11:45 | Break | 11:15- 11:25 | Break |
| 11:35- 12:00 | Predicting macromolecule structure and dynamics with deep learning and solution scattering Michal Hammel (Invited Speaker) | 11:25- 11:40 | Extracting Particle Conformations Unbiasedly from Small-angle Scattering Spectra Using Orthonormal Basis Expansions Guan-Rong Huang | 11:25- 11:50 | Amphiphile Self-Assembly in Deep Eutectic Solvents Karen Edler (Invited Speaker) | 11:45- 12:10 | Introduction of BioPharma- BioSAXS Beamline at KOREA- 4GSR Yeongsik Kim (Invited Speaker) | 11:25- 11:50 | Introduction to in-situ and automatic measurement systems for industrial use of SAXS beamlines in PLS-II Hyungju Ahn (Invited Speaker) |
| 12:00- 12:25 | Modelling the Detergent Corona Around the Membrane Protein MhsT Javier Perez (Invited Speaker) | 11:40- 11:55 | Introducing the new open-source small-angle X-ray scattering analysis software AUSAXS Kristian Lytje | 11:50- 12:05 | Hydrophobic Eutectic Solvents for Liquid-Liquid Extraction: X-Rays Scattering and Modelling Baptiste Bernicot | 12:10- 12:35 | BioSAXS Beamline to BIOSAXS GmbH Dmitri Svergun (Invited Speaker) | 11:50- 12:05 | The SPB/SFX instrument at the European XFEL - capabilities and scientific use cases in the small angle regime Adam Round |
| | | 11:55- 12:10 | Going to Extraordinary Lengths with SANS Xaver Brems | 12:05- 12:20 | Solvation behavior of alcohols, amines and ionic liquids viewed by small-angle neutron scattering and Raman spectroscopy Laszlo Almasy | | | 12:05- 12:20 | SMAUG beamline – construction of multipurpose small angle X-ray scattering beamline at SOLARIS National Synchrotron Radiation Centre, Poland Maciej Kozak |
| 12:30- 13:30 | Lunch (canSAS meeting) | 12:30- 13:30 | | | | Lunch | | | |



| Room | 1F 101AB (Live streaming: 101CD) | | | | | | | | | | | |
|-----------------|--|-----------------|---|------------------|--|-----------------|---|-----------------|---|--|--|--|
| 13:30- 14:20 | | | SAS imaging of life and materials s | (Ch cience sa | Plenary Session air: Florian Edouard P. Meneau) mples: Scanning SAXS, tensor t Oliver Bunk | omogra | phy and ptychographic imaging | | | | | |
| 14:20- 14:30 | | | | | Break | | | | | | | |
| Room | 1F 101AB | | 1F 101CD | | 1F 102 | | 1F 105 | | 3F South Lounge | | | |
| IMA-1 | Imaging with SAS and coherent diffraction-1 (Chair: Yu-Shan Huang/Yi-Wei Tsai) | MOD-2 | Structural modeling and results presentation (Chair: Uri Raviv/Javier Perez) | BIO-2 | Integrative methodologies for complex structures (Chair: Yun-Ru Ruby Chen/Yu- Chih Lo) | IND-2 | Structure evolution in processing procedure (Chair: Chi Wang/Mikihito Takenaka) | MAG-1 | Magnetic small-angle scattering (Chair: Lieh-Jeng Chang/Wei- Tin Chen) | | | |
| 14:30- 14:55 | X-ray imaging of the nanoparticle transformation in solution Dorota Koziej (Invited Speaker) | 14:30- 14:55 | Modelling small-angle X-ray scattering from protein- surfactant complexes: Rims and Hemi-micelles Jan Skov Pedersen (Invited Speaker) | 14:30- 14:55 | Cross-scale Causality in the Cyanobacterial Circadian Clock System Shuji Akiyama (Invited Speaker) | 14:30- 14:55 | BL03XU beamline for evaluating polymer materials in the industrial field Hiroyasu Masunaga (Invited Speaker) | 14:30- 14:55 | Higher-order modulations in the skyrmion lattice phase of Cu2OSeO3 Taku J. Sato (Invited Speaker) | | | |
| 14:55- 15:10 | Combining X-ray Imaging in Absorption, Phase Contrast, and Dark Field with SAXS/WAXS on the Laboratory Scale Scott Barton | 14:55- 15:20 | Structures, Energetics, and Dynamics of Active Tubulin Self- Organization Uri Raviv (Invited Speaker) | 14:55- 15:20 | Integrated use of SAXS/WAXS to uncover hidden structural and dynamic features in proteins Shan-Te Danny Hsu (Invited Speaker) | 14:55- 15:10 | Structural dynamics in crystalline film systems: from picoswitches to photo-triggered storage systems Sumea Klokic | 14:55- 15:10 | Dynamics of a moving mangetic skyrmion lattice in MnSi under an alternating curret flow Daisuke Okuyama | | | |
| 15:10- 15:25 | Small-angle X-ray Scattering Tensor Tomography of Human Lamellar Bone across Multiple Length Scales Torne Tänzer | 15:20- 15:35 | SAXS-revealed nanostructures and drug release of light- responsive poly(ethylene glycol)- grafted liposomes containing doxorubicin Chun-Jen Su | 15:20- 15:35 | An integrative approach unveils a distal encounter site for rPTPε and phospho-Src complex formation Meng-Chiao Ho | 15:10- 15:25 | SAXS studies of Polybutylene Succinate/Cellulose Nanocrystal/Epoxidized Soybean Oil Biodegradable Composite Heng-Chen Lin | 15:10- 15:25 | Magnetic microstructure of nanocrystalline Fe-Nb-B alloys as seen by small-angle neutron and X-ray scattering Venus Rai | | | |
| 15:25- 15:35 | Break | 15:35- 15:45 | Break | 15:35- 15:45 | Break | 15:25- 15:35 | Break | 15:25- 15:35 | Break | | | |

| Room | 1F 101AB | | 1F 101CD | 1F 102 | | 1F 105 | | | 3F South Lounge | |
|-----------------|--|-----------------|--|-----------------|--|-----------------|--|-----------------|---|--|
| 15:35- 16:00 | Three-dimensional Visualisation of Hierarchical Catalysts with Coherent X-ray Diffractive Imaging Florian Edouard P. Meneau (Invited Speaker) | 15:45- 16:10 | The Small Angle Scattering Biological Data Bank - SASBDB Cy Jeffries (Invited Speaker) | 15:45- 16:10 | BioSAXS using free-electron lasers Clement E. Blanchet (Invited Speaker) | 15:35- 15:50 | Pathway Selection in the Inclusion Complexation of the st- PMMA/C60/Toluene Multi- Component System Kuan-Yi Wu | 15:35- 16:00 | Volumetric Neutron Imaging of Bulk Skyrmion Lattice Structures Dmitry Pushin (Invited Speaker) | |
| 16:00- 16:15 | PtychoSAXS: Combined X-ray ptychography and SAXS imaging for nanostructure characterization Joseph McCourt | 16:10- 16:25 | New features in ATSAS 4.0, a program suite for small angle scattering data analysis Daniel Franke | 16:10- 16:25 | Multi-angle light scattering (MALS) coupled to SAXS data analysis in US-SOMO Emre Brookes | 15:50- 16:15 | Structure evolution of polymer film during uniaxial and biaxial stretching Kunpeng Cui (Invited Speaker) | 16:00- 16:15 | HYMN – A novel unified toolbox for in-situ magnetic hyperthermia experiments using neutron scattering Michał Dembski-Villalta | |
| 16:15- 16:30 | Experiments Detectors and Cloud-Based Data Pipelines to Advance Scattering Based Imaging Max Burian | 16:25- 16:40 | Automated biological SAXS data analysis: proteins, RNA, liposomes Al Kikhney | 16:25- 16:40 | Predicting Protein Profile Parameters by Deep Learning Method in Synchrotron Radiation Small-Angle X-ray Scattering Experiments Qingmeng Li | 16:15- 16:30 | AI-assisted Image Recognition for μ-Beam SAXS/WAXS on Polyacrylonitrile Filament Che-Min Chou | | | |
| | Flas | h Talk | | | | | | | | |
| 16:50- 17:20 | (Chair: Chih-Hao Lee) Flash Talk A (15 talks) | 16:50- 17:20 | (Chair: An-Chung Su) Flash Talk B (15 talks) | | | | | | | |
| Room | | | | | Room 201 | | | | | |
| 17:20- 19:00 | | | | | Poster Session | | | | | |

November 5, 2024 (Tuesday)

| Room | 1F 101AB (Live streaming: 101CD) | | | | | | | | | | | | |
|----------------------------|--|--|---|-----------------|---|-----------------|--|-----------------|--|--|--|--|--|
| 8:30-9:20 | | | Nan | oscale S | Plenary Session (Chair: Adrian Rennie) tructure and Magnetism in Ferr Sabrina Disch | ite Nano | oparticles | | | | | | |
| 9:20-9:30 | | | | | Break | | | | | | | | |
| Room SPECIAL Session | 1F 101AB SAS on semiconductor science and industrial (Chair: Hsin-Lung Chen/Pin-Jiun Wu) | IF 101CD :e Sow-Hsin Chen Distinguished un SHC-1 Lectureship (Chair: Tsan-Yao Chen) (Chair: Tsan-Yao Chen) | | | 1F 102 Integrated tools for industrial applications (Chair: Ching-I Huang/Hsieh- Chih Tsai) | BIO-3 | 1F 105 Assembly and functions of biomolecules (Chair: Jie-Rong Huang/Hui- Chun Cheng) | MAG-2 | 3F South Lounge Magnetism in quantum and spin materials (Chair: Taku J. Sato/Chun-Chuen Yang) | | | | |
| 9:30- 10:00 | Realizing Lithography to 1/40- wavelength Resolution Burn J. Lin (Academician Speaker) | 9:30- 10:20 | Micelle-Assisted and Covalent Bonding-Mediated Formation of Nanoparticle Superlattices Sung-Min Choi | 9:30- 9:55 | Applications of Small-Angle Neutron Scattering in Engineered Materials for Resilient Infrastructure LiPiin Sung (Invited Speaker) | 9:30- 9:55 | Deciphering the Phase Behavior of Prion-Like Low-Complexity Domains using Scattering Approaches Tanja Mittag (Invited Speaker) | 9:30- 9:55 | Small-angle neutron diffraction, quasielastic and inelastic scatterings on topological magnetic orders Taro Nakajima (Invited Speaker) | | | | |
| 10:00- 10:25 | Nanosheets and CFETs Chee-Wee Liu (Invited Speaker) | 10:20- 10:30 | break | 9:55- 10:20 | Investigating the Localization of Dyes within Surfactant Micelles using CV-SANS Ralf Schweins (Invited Speaker) | 9:55- 10:10 | Human Cep57 regulates the centrosome through liquid- liquid phase separation Hui-Chun Cheng | 9:55- 10:10 | Magnetic chirality & coupled order – insight via polarized GISANS Annika Stellhorn | | | | |
| 10:25- 10:50 | Coherent Surface Scattering and Holographic Imaging in Grazing-Incidence and Reflective Geometry Jin Wang (Invited Speaker) | SHC-I | SHC Memorial session (Chair: Yun Liu/Wei-Ren Chen) | 10:20- 10:35 | Operando SANS studies on the desalination of wastewater by reverse osmosis technology - membrane morphology, surface scaling and fouling Dietmar Schwahn | 10:10- 10:25 | The Role of Proline Residues in Prion-like Polypeptide Oligomerization and Liquid- Liquid Phase Separation: Implications for Amyloid Disruption Min-Yeh Tsai | 10:10- 10:25 | Grazing incidence small angle X- ray scattering and reflectivity study of a magnetic thin film with anti- dot nanostructure array Chih-Hao Lee | | | | |

| Room | 1F 101AB | | 1F 101CD | 1F 102 | | 1F 105 | | 3F South Lounge | |
|-----------------|---|-----------------|--|-----------------|--|-----------------|---|------------------------|--|
| 10:50- 11:00 | Break | 10:30- 10:35 | Opening | 10:35- 10:45 | Break | 10:25- 10:35 | Break | 10:25- 10:35 | Break |
| 11:00- 11:25 | Small Angle X-ray Scattering for the Semiconductor Industry R. Joseph Kline (Invited Speaker) | 10:35- 11:00 | How Neutron and X-ray Scattering can Contribute to Art Conservation Piero Baglioni | 10:45- 11:10 | Nanoscopic Identification and Labeling for Commercialization Processes and Industrial Production of Nanotechnological Products Semra Ide (Invited Speaker) | 10:35- 11:00 | How do plants sense temperature? Nanostructure characterization of biological hydrogels formed by the prion- like domain EARLY FLOWERING 3 Mark D. Tully (Invited Speaker) | 10:35- 11:00 | Near-Surface SANS: Probing Nanoscale Magnetic Correlations in Thin Films Grace L. Causer (Invited Speaker) |
| 11:25- 11:50 | A X-ray Scattering Based Metrology for Semiconductor Manufacturing Wei-En Fu (Invited Speaker) | 11:00- 11:25 | Scattered Reflections on the Achievements of an Enduring Scientific Mentor Michael Kotlarchyk | 11:10- 11:25 | Strucutre and Transport of PS-b-PAA Micelles Incorporating U(VI): A SAXS Study Qiang Tian | 11:00- 11:15 | Complexes of tubulin oligomers and tau form a viscoelastic intervening network cross- bridging microtubules into bundles Phillip Kohl | 11:00- 11:15 | Signature of surface anisotropy in the spin-flip neutron scattering cross section of spherical nanoparticles: Atomistic simulations and analytical theory Michael Adams |
| 11:50- 12:05 | Hybrid Photon Counting as an enabling technology for in-fab critical dimension small angle X- ray scattering Marcus Mueller | 11:25- 11:50 | Advancing Neutron Scattering to Explore Nano-scale Physics in Energy Systems Li Liu | 11:25- 11:40 | Development of advanced radiation-grafted membranes for fuel cells through a deep understanding of structure- property relationships Yue Zhao | 11:15- 11:30 | BioSAXS-derived mechanisms for differential regulation of Rab GTPases by site-specific monoubiquitination Sangho Lee | 11:15- 11:30 | The dendritic morphology impacts superconductivity in the nanoscale Min Kai Lee |
| | | | | 11:40- 11:55 | Revealing Dynamic Structure Tranformation of Unique 2D Perovskite Nanomaterials Di-Yan Wang | | | 11:30- 11:45 | Poster Magnetic ordering state in Fe nanoparticle assembly measured by small-angle neutron scattering Kosuke Hiroi |
| 12:10- 13:10 | Lunch (DECTRIS lunch session) | 12:10- 13:30 | | | | Lu | nch | | |



| Room | 1F 101AB (Live streaming: 101CD) | | | | | | | | | | | | | | |
|-----------------|--|--|--|-----------------|---|-----------------|---|-----------------|---|--|--|--|--|--|--|
| 13:30- 14:20 | | Plenary Session (Chair: Kazuo Sakurai) Antimicrobial Peptides: Insights into Lipid Interactions, Assembly, and Mode of Action through Scattering Techniques Reidar Lund | | | | | | | | | | | | | |
| 14:20- 14:30 | | | | | Break | | | | | | | | | | |
| Room | 1F 101AB 1F 101CD 1F 102 1F 105 3F South Lounge | | | | | | | | | | | | | | |
| KIN-1 | Structural evolution, gelation, and Rheo-SAS (Chair: Jung-Ren Huang/Hong- Cheu Lin) | SHC-2 | SHC Memorial session (Chair: Yun Liu/Wei-Ren Chen) | POL-1 | Polymer physics (Chair: Chieh-Tsung Lo/Beyongdu Lee) | BIO-4 | Biomedical SAS (Chair: Shu-Ying Wang/Michal Hammel) | IMG-2 | Imaging with SAS and coherent diffraction-2 (Chair: Gung-Chian Yin/Ying-Chieh Chen) | | | | | | |
| 14:30- 14:55 | Flow-field – structure interaction across lengthscales from new RheoSAXS based experiments Roland Kádár (Invited Speaker) | 14:30- 14:55 | Unusual Dynamics of Tetrahedral Liquids Caused by the Competition between Dynamic and Structural Heterogeneity Yang Zhang | 14:30- 14:55 | Utilization of 3D morhology dissection and synchrotron micro-beam X-ray diffraction on periodic assembly in polymeric crystals Eamor M. Woo (Invited Speaker) | 14:30- 14:55 | Lipid Self-Organization in the Context of Membrane Protein Research and Drug Delivery Volker Urban (Invited Speaker) | 14:30- 14:55 | Space and time domain super- resolution coherent diffraction imaging with extreme lights Changyong Song (Invited Speaker) | | | | | | |
| 14:55- 15:10 | Exploring the Microstructural Behaviour of Proton Exchange Membranes: Insights from Rheo-SWAXS Santiago Fernandez Bordin | 14:55- 15:20 | Applications of SANS with Contrast Variation in Biomedical Research: From Membrane Proteins to Drug Delivery Xiangqiang Chu | 14:55- 15:10 | Distortion of the Close-packed Lattices of Block Copolymer Micelles Aditya Sahare | 14:55- 15:10 | Structural Characterization of Lipid Nanoparticles as mRNA Drug Delivery System using Synchrotron Small-Angle X- Ray Scattering Na Li | 14:55- 15:20 | SAXS/WAXS imaging opportunities in cultural heritage science Sylvio Haas (Invited Speaker) | | | | | | |
| 15:10- 15:25 | Dual-level tetragonal packing of DNA-wrapped F127 micelles as revealed via Rheo-SAXS Vo Thuy Thien Ngan | 15:20- 15:45 | My life and work at MIT with Prof. Sow-Hsin Chen Cheng-Si Tsao | 15:10- 15:25 | Crystallization in Confined Microdomains Formed by Blends of An Amorphous- Crystalline Block Copolymer and An Amorphous Block Copolymer Chieh-Tsung Lo | 15:10- 15:25 | Margination and Alignment of Anisotropic Microparticles from Spatially Localised SAXS Measurements in a Model of Blood Flow Christopher Garvey | 15:20- 15:35 | High-resolution imaging of organic and inorganic nanoparticles at a nanometre resolution by X-ray ensemble diffraction microscopy Chien-Chun Chen | | | | | | |

| Room | 1F 101AB | | 1F 101CD | | 1F 102 1F 105 | | | | 3F South Lounge | | |
|-----------------|--|-----------------|--|-----------------|---|-----------------|---|-----------------|--|--|--|
| 15:25- 15:40 | Rheo-SAXS study of aiyu gelation Jung-Ren Huang | 15:45- 15:55 | Break | 15:25- 15:35 | Break | 15:25- 15:35 | Break | 15:35- 15:45 | Break | | |
| 15:40- 15:50 | Break | 15:55- 16:20 | Suppression of segmental chain dynamics on particle's surface in well-dispersed polymer nanocomposites Antonio Faraone | 15:35- 16:00 | Accelerated discovery of block copolymer libraries using automated chromatography Christopher M. Bates (Invited Speaker) | 15:35- 16:00 | Biology - small differences with important consequences measured by high throughput X-ray scattering Gregory L. Hura (Invited Speaker) | 15:45- 16:10 | 3D coherent diffractive imaging opportunities for biosystem at ultra-low emittance source Carla Cristina Polo (Invited Speaker) | | |
| 15:50- 16:15 | Investigation of the gelation mechanism of self-healing chitosan hydrogel Shan-hui Hsu (Invited Speaker) | 16:20- 16:45 | Studying concentrated colloidal systems by SAXS/SANS and NSE: from the static decoupling approximation to the dynamic decoupling approximation Yun Liu | 16:00- 16:25 | Nanostructure Formation and Mechanical Properties of Amphiphilic Random Copolymers in Aqueous Environments Katsuhiro Yamamoto (Invited Speaker) | 16:00- 16:15 | The structure-function relationship of immunocytokines studied by SAS Xin Jiang | 16:10- 16:25 | Mapping collagen orientation and remodelling due to breast cancer progression using SAXS-TT Andre Conceicao | | |
| 16:15- 16:30 | Attractive carbon black dispersions: structural and mechanical responses to shear rate Thomas Gibaud | | | 16:25- 16:40 | Revealing correlation between nanostructure and physical- chemical properties in electroactive polymer composites with ionic liquids Viktor Petrenko | 16:15- 16:30 | Timescales of Cell Membrane Fusion Mediated by SARS- CoV2 Spike Protein and influence of an antiviral drug candidate Sebastian Jaksch | 16:25- 16:40 | Obtaining an orientation distribution function from the 3D reciprocal space map in SASTT experiments Else Linnea Rensmo | | |
| 16:30- 16:45 | Precise Determination of Polymer Molecular Weight Using SAXS Analysis Chi-Chung Hua | | | | | 16:30- 16:45 | Exploring structural changes and stoichiometric binding of glycated human serum albumin through HPLC/SAXS/UV- Vis/RI Yi-Qi Yeh | | | | |
| | Flash T | alk | | | | | | | | | |
| 16:50- 17:20 | (Chair: Chih-Hao Lee) Flash Talk A (15 talks) | 16:50- 17:20 | (Chair: An-Chung Su) Flash Talk B (15 talks) | | | | | | | | |
| Room | | | | | Room 201 | | | | | | |
| 17:20- 19:00 | | | | | Poster Session | | | | | | |

November 6, 2024 (Wednesday)

| Room | 1F 101AB (Live streaming: 101CD) | | | | | | | | | | | | | |
|-----------------|--|-----------------|--|-----------------|---|-----------------|--|-----------------|--|--|--|--|--|--|
| 8:30- 9:20 | Plenary Session (Chair: Theyencheri Narayanan) Insights into Defective Lyotropic Phase Structures with Small Angle Scattering and Machine Learning Wei-Ren Chen | | | | | | | | | | | | | |
| 9:20- 9:30 | | | | | Break | | | | | | | | | |
| Room | 1F 101AB | | 1F 101CD | | 1F 102 | | 1F 105 | | 3F South Lounge | | | | | |
| MOD-3 | AI and machine learning in SAS (Chair: Ching-I Huang/Chun-Chieh Wang) | COL-2 | Gel and Self-assembly-2 (Chair: Hsin-Yun Hsu/Mitsuhiro Shibayama) | IND-4 | SAS applications in pharmaceuticals (Chair: Kun-Song Lin/Shu-Yi Lin) | INS-2 | Instrumentation and methodology-2 (Chair: Charlie Wu/Yoshie Otake) | | | | | | | |
| 9:30- 9:55 | Computational methods for analyzing small angle scattering data from soft materials Arthi Jayaraman (Invited Speaker) | 9:30- 9:55 | Using Small Angle Scattering to Understand Dipeptide-based Materials Dave J. Adams (Invited Speaker) | 9:30- 10:00 | A Drug-delivery Platform with Mesoporous Silica Nanoparticle for Brain Tumor Chung-Yuan Mou (Academician Speaker) | 9:30- 9:55 | Optimizing Energy Materials with In Situ GISWAXS Heinz Amenitsch (Invited Speaker) | 9:30- 9:55 | The reborn archetypal SANS instrument D11@ILL in Grenoble Sylvain Prévost (Invited Speaker) | | | | | |
| 9:55- 10:20 | Machine-learning-assisted Analysis of Small Angle X-ray Scattering Shun Yu (Invited Speaker) | 9:55- 10:20 | Structure and Dynamics of Thermoreversible Physical DNA Hydrogels Mitsuhiro Shibayama (Invited Speaker) | 10:00- 10:25 | Traceable characterization of biomedical nanoparticles using SAXS Christian Gollwitzer (Invited Speaker) | 9:55- 10:10 | Monitoring electrochemically mediated growth of nanoporous films by operando GISAXS Philipp Aldo Wieser | 9:55- 10:20 | Bilby - and Australian time-of- flight Small Angle Neutron Scattering instrument: nearly decade in operation. Successes in both, soft and hard matter study Anna Sokolova (Invited Speaker) | | | | | |
| 10:20- 10:35 | Development of AI-Assisted Small- Angle Scattering Data Analysis Framework using Galaxy Platform Changwoo Do | 10:20- 10:35 | Phase Transition and Gelation in Cellulose Nanocrystal-based Aqueous Suspensions Studied by SANS Yuan Xu | 10:25- 10:40 | Lipid Nanopariticle Phase Transitions Insvestigated Through High Thoughput Laboratory SAXS Josue San Emeterio | 10:10- 10:25 | Improving Thermal/Photo/Underwater- Stability of Polymer Solar Cells by Interface Engineering Chu-Chen Chueh | 10:20- 10:35 | Small Angle Scattering at the European Spallation Source Andrew Jackson | | | | | |
| 10:35- 10:45 | Break | 10:35- 10:45 | Break | 10:40- 10:50 | Break | 10:25- 10:35 | Break | 10:35- 10:45 | Break | | | | | |

| Room | 1F 101AB | | 1F 101CD | | 1F 102 | | 1F 105 | 3F South Lounge | | |
|-----------------|--|-----------------|---|-----------------|--|-----------------|--|------------------------|--|--|
| 10:45- 11:10 | Generating realistic scientific image data with stable diffusion and continuous human feedback Alexander Hexemer (Invited Speaker) | 10:45- 11:10 | Castor Oil bio-based gels as solvent confining and VOCs/hydrocarbons sorbent media Emiliano Fratini (Invited Speaker) | 10:50- 11:15 | Exogenous Lung Surfactant as a Drug Delivery Vehicle Through the Optics of Scattering Techniques Daniela Uhrikova (Invited Speaker) | 10:35- 11:00 | The evolution of bulk heterojunction to p-i-n active layer structures and fullerene to small molecule acceptor for organic Photovoltaics probed with small-angle X-ray scattering Kung-Hwa Wei (Invited Speaker) | 10:45- 11:10 | A Varierty of Neutron Detections for Industrial Use, Prepared on a Sample Table Satoshi Koizumi (Invited Speaker) | |
| 11:10- 11:25 | Physics-Informed Machine Learning for Multimodal Analysis Tanny Andrea Chavez Esparza | 11:10- 11:25 | Phytic Acid-Mediated Guanosine Supramolecular Hydrogels: Structure-Property Relationships and the Controlled Drug Release Hsin-Yun Hsu | 11:15- 11:30 | Scattering Function of a Polysaccharide-Nucleotide Complex Containing Two DNA Molecules Used for DDS Kazuo Sakurai | 11:00- 11:15 | Soft matter thin films under pressure: a morphological investigation under Grazing Incidence Neutron Scattering Apostolos Vagias | 11:10- 11:25 | Grazing Incidence Small-Angle Neutron Scattering (GISANS) for the Analysis of Nanostructural Alterations in Perforated Polymer Films Chun-Ming Wu | |
| 11:25- 11:40 | Structure Formation in Functional Films Based on Sustainable Biohybrid Composites Revealed by Machine-Learning-Supported Grazing-Incidence X-ray Scattering Julian Eliah Heger | 11:25- 11:40 | Rheo-SANS study on rheological behavior observed in cationic gemini-type surfactant solution without salt Hiroki Iwase | 11:30- 11:45 | Investigation of bone healing in the additive manufactured Ti6Al4V screw with chemical surface modification using non-destructive X-ray techniques E-wen Huang | 11:15- 11:30 | Asymmetric Side Chain Engineering on the Orientations of Semiconducting Polymers Yan-Cheng Lin | 11:25- 11:50 | Scattering From Hyperpolarized and Spin- Manipulated Molecular Solutions and Complex Fluids— Simulation, Theory, and Feasibility Michael Kotlarchyk (Invited Speaker) | |
| | | | | | | 11:30- 11:45 | Structure and dynamics in conductive PEDOT:PSS/cellulose nanocomposite films Lucas Kreuzer | | | |
| 11:50- 12:50 | Lunch (Xenocs lunch session) | 11:50- 12:50 | IUCr cSAS open meeting | | | | | | | |



| Room | | | | 1F 101 | AB (Live streaming: 101 | ICD) | | | | | | | |
|--------------------------|---|-----------------|--|----------------------|---|--------------------|---|-----------------|--|--|--|--|--|
| 13:00- 13:50 | | | Bio- | SAS for] | Plenary Session (Chair: Frank Gabel) Next Generation - samples are ir Masaaki Sugiyama | ı solution | 1- | | | | | | |
| 13:50- 14:40 | SAS Studies of Hier: | archically | Self-Organized Nano-Particles in | Guinier Polymer | Prize Award Presentation and L (Chair: Jan Illavsky) rs under Externally Applied Ene Takeji Hashimoto | ecture rgy Flow | : From Cascade Evolution of Dis | sipative S | Structures to Order | | | | |
| 14:40- | | | | SAS | 82030 bid proposal presentation | 8 | | | | | | | |
| 15:40 15:40- 15:50 | (Chair: U-Ser Jeng) Break | | | | | | | | | | | | |
| Room | 1F 101AB | | 1F 101CD | | 1F 102 | | 1F 105 | | 3F South Lounge | | | | |
| SUR-2 | Organic/inorganic functional thin films (Chair: Ya-Sen Sun/Yen-Ju Cheng) | CON-1 | Nature and biomimetic materials (Chair: An-Chung Su/Rong-Ming Ho) | COL-3 | Colloids and Self-Assembly (Chair: Jitendra Mata/Bhanu Nandan) | BIO-5 | Contrast SAS on multidomain structures (Chair: Shang-Te Danny Hsu/Shih-Che Sue) | KIN-2 | Dynamics in multiple time scale (Chair: Yi-Fan Chen/Changwoo Do) | | | | |
| 15:50- 16:15 | In Situ and Operando Grazing- Incidence Scattering Studies on Organic-Inorganic Functional Thin Films for Solar Cells Peter Müller-Buschbaum (Invited Speaker) | 15:50- 16:15 | Network Phases from Block Copolymer Self-Assembly for Biomimetic Materials Rong-Ming Ho (Invited Speaker) | 15:50- 16:15 | Formation of Monodisperse Poly (acrylic acid) Particles Made by Radical Precipitation Polymerization Kazuo Sakurai (Invited Speaker) | 15:50- 16:15 | Contrast variation in Bio- SAXS/SANS: recent advances and perspectives Frank Gabel (Invited Speaker) | 15:50- 16:15 | Tales of two tails: Insights into the hierarchical dynamics in lipid membranes from the molecular to the mesoscale Elizabeth Kelley (Invited Speaker) | | | | |
| 16:15- 16:40 | Understanding the crystalline and amorphous morphology of organic solar cells using grazing-incidence small-angle X-ray and neutron scattering techniques Xinhui Lu (Invited Speaker) | 16:15- 16:40 | The Importance of SAXS Analysis for Microscopical Biomimetics in the Fabrication of Silk-based Sustainable Products Taiyo Yoshioka (Invited Speaker) | 16:15- 16:40 | Structure Characterization of Supramolecular Polyhedra by Small-Angle X-ray Scattering Yi-Tsu Chan (Invited Speaker) | 16:15- 16:30 | Studying protein conformation fluctuations by the hydrogen deuterium exchange using SANS Yun Liu | 16:15- 16:40 | The ILL Neutron Spin Echo Suite Peter Falus (Invited Speaker) | | | | |
| 16:40- 16:50 | Break | 16:40- 16:50 | Break | 16:40- 17:05 | Break | 16:30- 16:55 | Novel Approaches for the Small-Angle Scattering Investigation of Intrinsically Disordered Proteins Pau Bernado (Invited Speaker) | 16:40- 16:50 | Break | | | | |

XIX International Small Angle Scattering Conference

| Room | 1F 101AB | 1F 101CD | | 1F 102 | | 1F 105 | | 3F South Lounge | |
|-----------------|--|-----------------|--|-----------------|---|-----------------|--|------------------------|---|
| 16:50- 17:15 | Innovative Functional Materials: Fundamental and Applications Pi-Tai Chou (Invited Speaker) | 16:50- 17:15 | Shining new light on cellulose microfibril nanostructure—still counting the chains after 100 years Hwan-Ching Tai (Invited Speaker) | 17:05- 17:20 | The Role of Ions in the Interaction and Swelling Behavior of pNIPAM Microgels Urs Gasser (Invited Speaker) | 16:55- 17:05 | Break | 16:50- 17:15 | Advances in Synchrotron Scattering Methods for Probing the Out-of-Equilibrium Dynamics of Colloids Theyencheri Narayanan (Invited Speaker) |
| 17:15- 17:40 | Molecular Orientation and Structure Controls from Film Surface for Organic Electronics Keisuke Tajima (Invited Speaker) | 17:15- 17:40 | The nanostructure of plant biomass from anisotropic X- ray/neutron scattering Yoshiharu Nishiyama (Invited Speaker) | 17:20- 17:35 | Illuminating Biosystem Interfacial Interactions and Structure Dynamics in Aqueous via SWAXS and SWANS Hsiao-Ching Yang | 17:05- 17:30 | Two Biomembrane Problems Solved by SAS Huey W. Huang (Invited Speaker) | 17:15- 17:40 | Small-angle XPCS at APS-U: A telescopic view of hierarchical structure dynamics in both space and time Qingteng Zhang (Invited Speaker) |
| 17:40- 17:55 | Elucidating Structure-Property- Performance Relationship of C- Shaped Fused-Ring nonfullerene Acceptors for Highly Efficient Organic Photovoltaics Yen-Ju Cheng | 17:40- 17:55 | 3D visualization of nanoscale cellulose properties in B. pendula by combined SWAXS and high-resolution microtomography Mira Viljanen | 17:35- 17:50 | Self-Assembly in Block Copolymer/Nanoparticle Mixtures Bhanu Nandan | 17:30- 17:55 | Applications of Small Angle Scattering in Structural and Kinetic Analyses of Lipid Nanoparticles Mu-Ping Nieh (Invited Speaker) | 17:40- 17:55 | Investigating magnetic nanoparticles dynamics with X- ray photon correlation spectroscopy to enhance contrast in medical imaging Simone Sala |
| | | | | | | 17:55- 18:10 | Unexpected asymmetric distribution of cholesterol and phospholipids in equilibrium model membranes Lionel Porcar | | |

November 7, 2024 (Thursday)

| Room | 1F 101AB (Live streaming: 101CD) | | | | | | | | | |
|-----------------|---|--|--|-----------------|--|-----------------|---|------------------------|--|--|
| 8:30- 9:20 | | Plenary Session (Chair: Jan Skov Pedersen) Self-Assembly of Nanomaterials Marianne Imperor-Clerc | | | | | | | | |
| 9:20- 9:30 | | Break | | | | | | | | |
| Room | 1F 101AB | | 1F 101CD | | 1F 102 | 1F 105 | | 3F South Lounge | | |
| COL-4 | Assembly of colloidal nanoparticles (Chair: De-Hao Tsai/Di-Yan Wang) | POL-2 | Hierarchical structures of polymers and composites (Chair: Che-Yi Chu/Christopher Bates) | INS-3 | Instrumentation and methodology-3 (Chair: Jia-Jhen Kang/Andrew Clulow) | CON-2 | Condensed materials (nanoparticles, high-entropy alloys) (Chair: Tsai-Fu Chung/Cheng-Yu Wang) | KIN-3 | Kinetics in multiple time scale (Chair: Michitoshi Hayashi/Chiao-Hung Du) | |
| 9:30- 9:55 | SAXS Analysis of Colloidal Crystals Engineered with DNA Byeongdu Lee (Invited Speaker) | 9:30- 9:55 | Scattering studies on morphologies with high packing frustration in block copolymers Moon Jeong Park (Invited Speaker) | 9:30- 9:55 | Recent Developments for Automated Small-Angle Scattering at the BioSAXS Beam Line BL4-2 at SSRL Thomas Weiss (Invited Speaker) | 9:30- 9:55 | Small Angle Scattering for Advanced Manufacturing Fan Zhang (Invited Speaker) | 9:30- 9:55 | Following and controlling formation and function of self- assembled strongly-coupled nanocrystal superlattices Naomi Ginsberg (Invited Speaker) | |
| 9:55- 10:10 | SAXS Study for Investigating 3D Nanoparticle Packing Structure of Pt Catalyst on Gd- Doped CeO2 Supports for Fuel Cells Tomoyuki Iwata | 9:55- 10:20 | From Self-Assembly Structure to Meso/Microporous Structure by using SAXS analyses Shiao-Wei Kuo (Invited Speaker) | 9:55- 10:20 | Sort & Scatter: Multifaceted Characterization of Nanoparticles and Proteins by Coupling Solution SAXS with Field-Flow Fractionation (FFF) Melissa Graewert (Invited Speaker) | 9:55- 10:10 | Diffusional-structural formation of nanoclusters in dilute MgYZn alloys examined by combined use of SWAXS and EXAFS Hiroshi Okuda | 9:55- 10:20 | Nonclassical nucleation pathways revealed by SAXS and WAXS Bert Nickel (Invited Speaker) | |
| 10:10- 10:25 | Self-ordered colloid of surfactant-free hard ferromagnetic hexaferrite nanoplatelets: SAXS study Andrei Chumakov | 10:20- 10:30 | Break | 10:20- 10:35 | Sample environments available at CoSAXS beamline: a multifunctional toolbox for bioSAXS studies Fátima Herranz-Trillo | 10:10- 10:25 | In-situ SAXS characterization of pre-ageing and paint-baked ageing precipitation strengthening on AA6061 (Al- Mg-Si-Cu) alloys subjected to prolonged natural secondary ageing processes Tsai-Fu Chung | 10:20- 10:30 | Break | |

| Room | 1F 101AB | | 1F 101CD | | 1F 102 | | 1F 105 | | 3F South Lounge | |
|-----------------|---|-----------------|---|-----------------|---|-----------------|---|-----------------|--|--|
| 10:25- 10:35 | Break | 10:30- 10:55 | ASAXS Analyses on Hierarchical Structures of Rubber/Filler Systems Mikihito Takenaka (Invited Speaker) | 10:35- 10:45 | Break | 10:25- 10:35 | Break | 10:30- 10:55 | Hydration Water Dynamics in the Vicinity of Biomolecules and Biocompatible Molecules Hideki Seto (Invited Speaker) | |
| 10:35- 11:00 | Hyperordered Superlattices of Colloidal Quantum Dots for Future Electronics and Photonics: The Vital Role of Small-angle Scattering Satria Zulkarnaen Bisri (Invited Speaker) | 10:55- 11:10 | Magnetic-Field Induced Order- Order Transition from Hexagonally Packed Cylinders in a Diblock Copolymer/Nanoparticle Nanocomposite Che-Yi Chu | 10:45- 11:10 | BioSAXS - The Future of Solution Scattering at the Australian Synchrotron Andrew Clulow (Invited Speaker) | 10:35- 11:00 | Investigations on commercial VDMÒ Alloy 780 high- temperature alloys for gas turbines using SANS and complementary methods Ralph Gilles (Invited Speaker) | 10:55- 11:20 | Real-time Dynamics of Soft Matter by X-ray Photon Correlation Spectroscopy Felix Lehmkühler (Invited Speaker) | |
| 11:00- 11:15 | Nucleation-induced Self- Assembly: a ubiquitous formation pathway towards ultrathin colloidal nanoplatelets Benjamin Abecassis | 11:10- 11:25 | Exploring the structural properties of piezoresistive nanocomposites with bidisperse carbon nanofillers Timur Tropin | 11:10- 11:25 | Solution protein structure and time- resolved analysis by BioSAXS at SPring-8 Satoshi Nagao | 11:00- 11:15 | In-situ and Ex-situ SAXS Analyses of Hard Carbon Materials for Sodium-ion batteries Chunzhen Yang | 11:20- 11:35 | Development of a new technique for the study of dynamics ~ Small-angle X-ray Blinking (SAXB) ~ Katsuaki Inoue | |
| | | 11:25- 11:40 | Distribution of Oriented Lamellar Structures in Injection-Molded High-Density Polyethylene Visualized via SAXS-CT Method Hiroki Ogawa | 11:25- 11:40 | New developments for BioSAXS on SWING beamline at Synchrotron SOLEIL Aurélien Thureau | | | | | |
| | Depart for NSRRC tour (to-go lunch box provided) | | | | | | | | | |

| 11:20-11:50 | NSRRC tour bus departure (departs from TICC South Gate) |
|-------------|--|
| 13:00 | NSRRC Arrival |
| 13:30-15:45 | NSRRC beamline tour (departs from NSRRC activity center, D260) |
| 15:50 | Bus departure to the Banquet (or Dazhi MRT Station for those who didn't sign up for the banquet) |
| 18:00 | Banquet at the Silks Palace |
| 21:30 | Bus departure back to TICC |



November 8, 2024 (Friday)

| Room | 1F 101AB | | 1F 101CD | | 1F 102 | | 1F 105 | 3F South Lounge | |
|----------------|---|----------------|---|----------------|---|----------------|---|------------------------|---|
| SUR-3 | Heterogeneous interface scattering and reflectivity (Chair:Tzu-Yen Huang/Hsiung Chou) | POL-3 | Biopolymer and environmental application (Chair: Shih-Huang Tung/Dietmar Schwahn) | BIO-6 | Food Science (Chair: Hsi-Mei Lai/Elliot Gilbert) | INS-4 | Instrumentation and methodology-4 (Chair: Adrian Rennie/Paul Butler) | COL-5 | Assembly, precipitates, and aggregates (Chair: Felix Lehmkühler/Fan Zhang) |
| 8:30- 8:55 | Temperature/Solvent Annealing Effect on Nanostructure of Ionomer Thin Films Revealed by Multi-Prove Experiments Norifumi L. Yamada (Invited Speaker) | 8:30- 8:55 | Structural Characterisation of Silk Fibroin Based Hydrogels Using Small and Ultra-Small Angle Neutron Scattering Techniques Jitendra Mata (Invited Speaker) | 8:30- 8:55 | Structural evolution of meat analogues during high moisture extrusion Wim Bouwman (Invited Speaker) | 8:30- 8:55 | Advancements, Opportunities, and Challenges in the New Generation of USAXS Instruments Jan Ilavsky (Invited Speaker) | 8:30- 8:55 | Aquaporin Z incorporation into proteoliposomes and complex lipid nano-assemblies Jacob Judas Kain Kirkensgaard (Invited Speaker) |
| 8:55- 9:20 | Understanding the role of hydrogen in the phase transitions of nickelate systems Laura Guasco (Invited Speaker) | 8:55- 9:10 | Linking the Ligand Shell Structure of Nonpolar Nanoparticles to their Colloidal Stability Bart-Jan Niebuur | 8:55- 9:20 | Structural properties of vegetable oil/water emulsions stabilized by pea protein Eleonora Olsmats (Invited Speaker) | 8:55- 9:20 | The Development of Biomaterials Research at 122 Nick Terrill (Invited Speaker) | 8:55- 9:20 | Exploring Self-Assembly using Multifacility, Concurrent SAXS and SANS on the Autonomous Formulation Laboratory Peter Beaucage (Invited Speaker) |
| 9:20- 9:35 | Impact of the degree of curvature on the phase separation in lipid bilayer Olena Kyzyma | 9:10- 9:25 | Analysis of Internal Structure of Microbially Produced Polyesters under Drawing Masato Arakawa | 9:35- 9:45 | Break | 9:20- 9:35 | ForMAX – a beamline for multiscale and multimodal structural characterization of hierarchical materials Vahid Haghighat | 9:20- 9:35 | The effect of serine (S) amino acid in the PRWG lipopeptide: from unusual changes in the nanostructure self-assembly to glyphosate pesticide detection enhancement Barbara Gerbelli |
| 9:35- 9:45 | Break | 9:25- 9:35 | Break | | | 9:35- 9:45 | Break | 9:35- 9:45 | Break |
| 9:45- 10:10 | X-ray and Neutron Reflectometry on the Adsorbed Polymer Layer and Its Interfacial Structure with a Polymer Thin Film Naoya Torikai (Invited Speaker) | 9:35- 10:00 | Structural Investigation of Human Hair Using a Multifactorial Approach Cristiano Oliveira (Invited Speaker) | 9:45- 10:10 | Gluten versus gluten-free pasta: a structural analysis Judith Houston (Invited Speaker) | 9:45- 10:10 | SAXS/WAXD Beamline with Anton Paar SAXSpoint 5.0 at NanoTerasu Maiko Nishibori (Invited Speaker) | 9:45- 10:10 | Observing the Nanoaggregates in the Electrolytes By Small-Angle X-Ray Scattering Tao Li (Invited Speaker) |

| Room | 1F 101AB | | 1F 101CD | 1F 102 | | 1F 105 | | 3F South Lounge | |
|-----------------|---|---|---|-----------------|---|-----------------|---|------------------------|---|
| 10:10- 10:25 | Molecular-Weight Effects of a Homopolymer on the AB- and ABC-stacks of Perforations in Block Copolymer/ Homopolymer Films Ya-Sen Sun | 10:00- 10:15 | Human hair microstructural study by spin contrast variation SANS Yohei Noda | 10:10- 10:25 | Small and ultra-small angle neutron scattering investigation of acid- and/or pepsin-induced milk coagulation and degradation of milk curd by pepsin Mengxiao Yang | 10:10- 10:25 | Next Level Grazing Incidence, Part I: Standardization of Calibration and Alignment for Grazing Incidence Small-Angle (X-ray) Scattering Anja Franziska Hörmann | 10:10- 10:25 | Mechanism, structural evolution and Kinetic Study of Phase transformation of High Entropy Alloy Clustering in Polymetallic MOF Pyrolysis Cheng-Yu Wang |
| 10:25- 10:40 | Laser Pump - X-ray Probe studies on liquid interfaces at LISA P08 Petra III Svenja Hövelmann | 10:15- 10:30 | Small-angle X-ray scattering and hair conditioners: From model systems to commercial products Pedro Leonidas Oseliero Filho | 10:25- 10:40 | Structural characterization of emulsion casein gels across varied processing temperatures using SAXS and WAXS Ester Pastrana | 10:25- 10:40 | On the usage of anomalous SAXS to analyse the structure and composition of bimetallic nanoparticles and quantum dots Armin Hoell | 10:25- 10:40 | Small-angle X-ray scattering as powerful tool to characterize ultrasmall nanoparticles of noble metals Oleg Prymak |
| 10:50 | Break | | | | | | | | |
| Room | | | | 1F 1(| 01AB (Live streaming: 10 | 1CD) | | | |
| 10:50- 11:40 | | Plenary Session (Chair: An-Chung Su) Macromolecular Metallurgy of Block Copolymer Hsin-Lung Chen | | | | | | | |
| 11:40- 12:00 | IUCr/AOF/Paper/Poster/Otto-Kratky Prize awarding ceremony, SAS Conference Baton Transfer, and Closing | | | | | | | | |
| | | | | | Lunch | | | | |
| 13:00 | | | | Optiona | Excursion departure from TICC So | outh Gate | | | |

Flash Talk Program

November 4, 2024 (Monday) Room 101AB

Chair: Chih-Hao Lee

| Order | Poster Number | Speaker | Title |
|-------|---------------|--------------------------|---|
| 1 | DH 06 | Shang Wei Lin | Probing the Self-assembly of Metal-Organic Framework by |
| 1 | 111-00 | Shang-wei Lin | Molecular Dynamics Simulation |
| 2 | PA-24 | Andrew Jackson | Hydration in Deep Eutectic Solvents and Protein Conformation |
| 3 | PA-20 | Liliana de Campo | Hydrocarbon-Fluorocarbon Patterns in the Membranes of Star- |
| 5 | 1 A-20 | Linana de Campo | polyphile Mesophases |
| | | | Self-assembled Structures of Phospholipid-Amphiphilic Cyclic |
| 4 | PA-15 | Isamu Akiba | Peptide Mixtures Explored by SAXS and SANS in Combination |
| | | | with Field-Flow-Fractionation |
| 5 | PH-03 | Uri Raviv | Mechanism of Virus Capsid Assembly and Disassembly |
| 6 | PA-10 | A 10 Joanna Chazani | Hierarchical nanocomposites films elaborated by filtration of |
| 0 | 174 10 | | anisometric clay particles |
| 7 | PA-06 | Rainer T. Lechner | Supercrystal Properties studied by in-situ SAXS: From |
| 1 | 111 00 | | Nanometers to Micrometers |
| | | | Temporal orientational order fluctuations in rod-like colloidal |
| 8 | PH-01 | Taiki Hoshino | particles near the liquid crystal phase transition studied by |
| | | | coherent X-ray scattering |
| 9 | PA-05 | PA-05 Cristiano Oliveira | Advanced Structural Characterization of Lyotropic Liquid |
| | 1 A-05 | | Crystals by Small Angle X-Ray Scattering |
| 10 | PA-04 | Juanita Francis | Combining SANS and optical spectroscopies to investigate |
| | | | assembly mechanisms in silk proteins |
| 11 | PA-03 | Dietmar Schwahn | Polymorphic Phase Transition in low Monomolecular Liquids |
| | 111 00 | | above and below the Critical Point |
| 12 | PA-02 | Andrew Clulow | Modulation of Alkylglyceride Crystallisation at Oil-water |
| 12 | | | Interfaces by Milk Proteins |
| 13 | PH-08 | Thuy Thien Ngan | Dual-level hexagonal-within-tetragonal packing of DNA-wrapped |
| 15 | 111-00 | VO | F127 micelles as revealed via Rheo-SAXS |



November 4, 2024 (Monday) Room 101CD

Chair: An-Chung Su

| Order | Poster Number | Speaker | Title |
|-------|---------------|--------------------------|--|
| 1 | PF-15 | U-Ser Jeng | Sequence and composition dependent helical conformation of short dipeptide repeats of (GR)25-x(GP)x revealed using SEC- SWAXS |
| 2 | PF-08 | Nicholas Engel | Small-Angle X-Ray Scattering for Traceable Characterization of LNPs and Liposomes |
| 3 | PJ-02 | Gerhard Popovski | Small Angle Scattering Data Evaluation of Particulate Structures Using Bead Models without Predefined Grid |
| 4 | PF-22 | Joanna Slawek | How does metal replacement affect enzyme stability in extreme conditions – comprehensive SAXS, cryoEM and XRD studies of glucose/xylose isomerase from Streptomyces rubiginosus. |
| 5 | PJ-10 | Glen Smales | DACHS: Database for Automation, Characterisation, and Holistic Synthesis |
| 6 | PF-12 | Joshua Del Mundo | Refinement of Alphafold predictions using small-angle X-ray scattering |
| 7 | PJ-04 | Kas Andrle | Using a FEM based Maxwell solver and RSoXS measurement for the reconstruction of nanostructures |
| 8 | PF-16 | Christopher Garvey | In hospice Architectural Dynamics of Photosynthetic Thylakoid Membranes during Simulated Coral Bleaching by Small Angle Neutron Scattering |
| 9 | PF-13 | Dmytro Soloviov | Order-disorder effects in lipid bilayers induced by cyclic electric fields |
| 10 | PF-02 | Sat Septian Dwitya | Preparation and Characterization of Polydopamine-coated Cobalt Ferrites Using SAXS/SANS with Protein Encapsulation |
| 11 | PG-09 | Andreas Keilbach | Evaluating the Specific Surface Area by Small-Angle X-ray Scattering |
| 12 | PF-25 | Emre Brookes | A website for fast ensemble modeling optimizing the fit of AlphaFold or user-supplied protein structures with flexible regions to SAXS data |
| 13 | PJ-09 | Theyencheri Narayanan | Magnetic Field Induced Assembly and Dynamics of Silica-Nickel Janus Particles |
| 14 | PF-01 | Kaun-Hsuan Su | Operando Small-angle X-ray and Neutron Contrast Variation Scattering to Unveil the Protein Dynamic Personalities |
| 15 | PF-10 | Ming-Tao Lee | Lipid vesicle aggregation and fusion induced by penetratin |



November 5, 2024 (Tuesday) Room 101AB

Chair: Chih-Hao Lee

| Order | Poster Number | Speaker | Title |
|-------|---------------|--------------------------|---|
| 1 | PB-23 | Nan-Ching Huang | Hierarchical Structures of Conducting Polymer-graft-Clay Nanohybrids |
| 2 | PB-16 | Babak Nouri | Influence of Wet-Brush Homopolymer Molecular Weight on the Micelle Packing in Block Copolymer/Homopolymer Blends |
| 3 | PE-07 | Je-Wei Chang | Small- and wide-angle X-ray scattering from photonic structures of Scarabaeoidea beetles |
| 4 | PB-25 | Pablo Mota Santiago | Assessing the interconnection between the microstructure of carbon fibres and the processing parameters |
| 5 | PB-02 | Cheng-Hao Liao | PEO-Based Solid Polymer Electrolyte Enhanced by Recombinant Spider Silk for All-Solid-State Lithium Battery |
| 6 | PB-01 | Ralf Schweins | Micelle Formation of Block Copolyelectrolytes in the Presence of Counterions |
| 7 | PB-04 | Ndumiso Vukile Mdlovu | Microstructural Characterization of Stimuli-/Thermo-Responsive Pluronic F127 Based Nanocomposites for Drug Controlled Release Using SAXS/SANS |
| 8 | PB-03 | Qi Zhang | Characterization of chemical/structural information of latent image via critical-dimension resonant soft X-ray scattering |
| 9 | PE-05 | Thomas Dorin | Unravelling the Formation of Core-Shell Precipitates in Aluminium Alloys: A Novel Approach via Anomalous Small Angle X-Ray Scattering |
| 10 | PB-33 | Yi-Chun Liu | Synthesis of PDMS Block and Graft Copolymers by RAFT Polymerization and Their Self-assembly Investigations |
| 11 | PB-27 | Hung-Yuan Chen | Study of the Effect of Different Additives on the Solid Electrolyte Interface (SEI) Film of Graphite Negative Electrode Material Using Small-Angle Neutron Scattering |
| 12 | PE-06 | Philipp Materna | Characterization of room temperature Sodium Sulfur Batteries using Small-Angle and Wide-Angle X-ray scattering (SAXS/WAXS) methods |
| 13 | PB-28 | Yu-Cheng Chiu | Altering the Microstructure of Conjugated Polymers in Solution via Microwave Irradiation |



November 5, 2024 (Tuesday) Room 101CD

Chair: An-Chung Su

| Order | Poster Number | Speaker | Title |
|-------|---------------|---------------------------|--|
| 1 | PI-02 | Sylvio Haas | Advanced methods available at the SAXSMAT beamline P62 at DESY |
| 2 | PI-01 | Andy Smith | Bonse-Hart USAXS at I22, Diamond Light Source: "Improvements" and first results |
| 3 | PI-14 | Tsutomu Matsui | Adaptable SEC-SAXS data collection at SSRL BL4-2 |
| 4 | PI-10 | Hannes Mio | Simple-SAXS: A New Approach to an Economic and Resource- Saving Small & WideAngle X-ray Scattering Instrument |
| 5 | PI-07 | Maarten Turenhout | ICS-SAXS: Hard X-ray metrology accelerated by an inverse Compton scattering source |
| 6 | PL-02 | Shun Yu | In-situ X-ray analysis of cold alkali dissolution of cellulose pulps of various origins |
| 7 | PL-08 | Barbara Gerbelli | Utilising Wide angle X-ray scattering for high accuracy of diagnostics of breast cancer |
| 8 | PI-12 | Joseph Kline | New SAXS Calibration Reference Standard |
| 9 | PL-01 | Gözde Bayazit Sekitmen | Novel Synthesis of CaO Nanoparticles and Characterization by SAXS and Complementary Methods |
| 10 | PL-07 | Masato Ohnuma | Process Dependence of Nanostructure of Real Cheese |
| 11 | PL-04 | Christopher Garvey | The Perspective of X-ray Scattering on the Degradation Processes in Environmentally Exposed Thermoplastics |
| 12 | PL-06 | Masato Ohnuma | Time Evolution of Nanostructure in Al Alloys with 1 mm Thick Measured by Laboratory High Energy Small-Angle X-ray Scattering |
| 13 | PI-08 | Adrian Rennie | Measurement and Calibration of Laboratory USAXS Resolution |