

M&M 2021 Virtual – Full Schedule – Platform Presentations

Session	Date	Session Start Time	Session End Time	Presentation Number and Title	Presenting Author
A01.1	8/2/2021	12:30 PM	1:30 PM	1 - Comparing different software packages for the mapping of strain from scanning precession diffraction data	Ian MacLaren
A01.1	8/2/2021	12:30 PM	1:30 PM	2 - Angstrom-scale Magnetic Measurements of a Metallic Antiferromagnet with 4D-STEM	Jeffrey Huang
A01.1	8/2/2021	12:30 PM	1:30 PM	3 - Quantification of Structural Heterogeneities and Morphologies in Ultrathin Au-based Nanowire Systems using 4D STEM and Electron Tomography	Alexandra Bruefach
A01.1	8/2/2021	12:30 PM	1:30 PM	4 - Low Dose Mapping of Semicrystallinity in Polymer Membranes with cryogenic 4D-STEM	Danielle Markovich
A01.1	8/2/2021	12:30 PM	1:30 PM	5 - Materials Science Applications and Analysis of Very Large 4D-STEM Experiments	Colin Ophus
A01.2	8/2/2021	2:30 PM	3:30 PM	70 - Real-time interactive ptychography from electron event representation data	Philipp Pelz
A01.2	8/2/2021	2:30 PM	3:30 PM	71 - Ptychographic Single Particle Analysis for Biological Science	Peng Wang
A01.2	8/2/2021	2:30 PM	3:30 PM	72 - Scanning confocal electron diffraction (SCED): high angular resolution diffraction imaging with order-of-magnitude improved dose efficiency	Mingjian Wu
A01.2	8/2/2021	2:30 PM	3:30 PM	73 - Improving data quality for 3D electron diffraction (3DED) by Gatan Image Filter (GIF)	Taimin Yang
A01.2	8/2/2021	2:30 PM	3:30 PM	74 - Complementary use of high-resolution and high-precision cryo-ED and EM	Koji Yonekura
A01.3	8/3/2021	10:45 AM	11:45 AM	243 - Symmetry Analysis in Metallic Glasses by Electron Nanodiffraction	Shuoyuan Huang
A01.3	8/3/2021	10:45 AM	11:45 AM	244 - Multislice electron ptychography enables lattice vibration-limited resolution and linear phase-contrast imaging in thick samples	Zhen Chen
A01.3	8/3/2021	10:45 AM	11:45 AM	245 - Dose-efficient tcBF-STEM imaging with real-space information beyond the scan sampling limit	Yue Yu
A01.3	8/3/2021	10:45 AM	11:45 AM	246 - Strategies for fast and reliable 4D-STEM orientation and phase mapping of nanomaterials and devices	Jian-Min Zuo
A01.3	8/3/2021	10:45 AM	11:45 AM	247 - Unifying 3D electron diffraction and serial electron diffraction into a high-resolution, high-accuracy and high-throughput structural analysis technique	Xiaodong Zou
A01.4	8/3/2021	12:30 PM	1:30 PM	318 - Wide Dynamic Range, 10 kHz Framing Detector for 4D-STEM	Hugh Philipp
A01.4	8/3/2021	12:30 PM	1:30 PM	319 - High-Fidelity 4D-STEM Enabled by Live Processing at 15'000 Detector Frames Per Second	Benedikt Haas
A01.4	8/3/2021	12:30 PM	1:30 PM	320 - Low-Cost Direct Electron Detection in the SEM for EBSD and ECCI	JOSEPH TESSMER
A01.4	8/3/2021	12:30 PM	1:30 PM	321 - Leveraging Hybrid Pixel Electron Detection Technology to Expand Electron Microscopy Observation of Material Structures at low Voltages	Anahita Pakzad
A01.4	8/3/2021	12:30 PM	1:30 PM	322 - An Ultrafast Direct Electron Camera for 4D STEM	Paul Voyles
A01.5	8/3/2021	3:00 PM	4:00 PM	419 - A faster image simulation algorithm for scanning transmission electron microscopy	Philipp Pelz

A01.5	8/3/2021	3:00 PM	4:00 PM	420 - Machine Learning Based Precision Orientation and Strain Mapping from 4D Diffraction Datasets	Renliang Yuan
A01.5	8/3/2021	3:00 PM	4:00 PM	421 - Automatic Diffraction Analysis and Lattice Fitting for Convergent-Beam Electron Diffraction Patterns in 4D-STEM	Sihan Wang
A01.5	8/3/2021	3:00 PM	4:00 PM	422 - Refinement of crystal structure using 'digital' large angle convergent beam electron diffraction	Richard Beanland
A01.5	8/3/2021	3:00 PM	4:00 PM	423 - Serial Electron Crystallography: New Developments for Data Collection and Analysis	Robert Buecker
A01.6	8/4/2021	11:30 AM	12:30 PM	597 - 4D-STEM: Combining Pair Distribution Mapping and Multivariate Statistic Analysis to Quantify Structures in Complex Nanoscale Glasses	Christian Kuebel
A01.6	8/4/2021	11:30 AM	12:30 PM	598 - Structural and Morphological Characterization of Novel Organic Electrochemical Transistors via Four-dimensional (4D) Scanning Transmission Electron Microscopy	Andrew Herzing
A01.6	8/4/2021	11:30 AM	12:30 PM	599 - Mapping Polarization of Perovskite Oxides across Scales Using 4D STEM with Improved Spatial Resolution	Tim Eldred
A01.6	8/4/2021	11:30 AM	12:30 PM	600 - 4D-STEM analysis of an amorphous-crystalline polymer blend: combined nanocrystalline and RDF mapping.	Jennifer Donohue
A01.6	8/4/2021	11:30 AM	12:30 PM	601 - Diffraction imaging of organic materials in extreme environments	YUJUN XIE
A01.7	8/4/2021	2:15 PM	3:15 PM	664 - From Convergent Beam Electron Diffraction to 4D-STEM: New opportunities for revealing structure at the atomic scale	Joanne Etheridge
A01.7	8/4/2021	2:15 PM	3:15 PM	665 - Comparison Between Moiré Sampling Scanning Transmission Electron Microscopy Geometrical Phase Analysis Strain Characterization Method and Dark-Field Electron Holography	Alexandre Pofelski
A01.7	8/4/2021	2:15 PM	3:15 PM	666 - Crystal Lattices Reconstruction from Moiré Aliased Scanning Transmission Electron Microscopy Electron Micrograph	Alexandre Pofelski
A01.7	8/4/2021	2:15 PM	3:15 PM	667 - Studying clustering in Al alloys by 4D-STEM	Elisabeth Thronsen
A01.7	8/4/2021	2:15 PM	3:15 PM	668 - Dose-efficient strain mapping with high precision and throughput using cepstral transforms on 4D-STEM data	Harikrishnan K. P.
A01.8	8/5/2021	10:00 AM	11:00 AM	830 - A Ptychographic Approach for Low Dose Electron Imaging of Organic Molecules	KAYLA NGUYEN
A01.8	8/5/2021	10:00 AM	11:00 AM	831 - Low Dose 4D Scanning Transmission Electron Microscopy of Block Copolymers and Homopolymers at 30 keV in an SEM	Cristina Cordoba
A01.8	8/5/2021	10:00 AM	11:00 AM	832 - Autonomous EBSD Pattern Classification Performance with Changing Acquisition Parameters	Kenneth Vecchio
A01.8	8/5/2021	10:00 AM	11:00 AM	833 - Reconstructing grains in 3D through 4D Scanning Precession Electron Diffraction	Patrick Harrison
A01.8	8/5/2021	10:00 AM	11:00 AM	834 - Analysis of Dynamical Electron Backscatter Diffraction Patterns of Ferrite and Martensite Phases in Steels	Anita Heczal
A02.1	8/2/2021	12:30 PM	1:30 PM	6 - Preparation of samples: Why use Ga, Xe or photons?	Joseph Michael
A02.1	8/2/2021	12:30 PM	1:30 PM	7 - Save your FIB from the hard work – Large-scale sample prep using a LaserFIB	Tobias Volkenandt

A02.1	8/2/2021	12:30 PM	1:30 PM	8 - Low Energy 500 eV Focused Argon Ion Beam Provided by Multi-Ions Species Plasma FIB for Material Science Sample Preparations	chengge Jiao
A02.1	8/2/2021	12:30 PM	1:30 PM	9 - Applications of the Cesium Low Temperature Ion Source	Adam Steele
A02.1	8/2/2021	12:30 PM	1:30 PM	10 - Deciphering Liquid Metal Embrittlement and Altered FIB Damage Microstructures on Aluminum	Kultaransingh (Bobby) Hooghan
A02.2	8/2/2021	2:30 PM	3:30 PM	75 - Focused ion beam deposited carbon-platinum nanowires for cryogenic resistive thermometry	Kirsten Blagg
A02.2	8/2/2021	2:30 PM	3:30 PM	76 - Developing Higher Quality Conductors and Insulators to Enable Fieldable FIB edits to Complex Microelectronics	Peter Lewis
A02.2	8/2/2021	2:30 PM	3:30 PM	77 - Identification of topological magnetic order in a Weyl line ferromagnet	Guangming Cheng
A02.2	8/2/2021	2:30 PM	3:30 PM	78 - Novel thin film lift-off process for in situ TEM tensile characterization	Krishna Kanth Neelisetty
A02.2	8/2/2021	2:30 PM	3:30 PM	79 - Expanding the Capability of Xe Plasma Focused Ion Beam Sample Preparation for Transmission Electron Microscopy	Suzy Vitale
A02.3	8/3/2021	10:45 AM	11:45 AM	248 - Imaging and Ion-Beam Milling of Biological Specimens with the Helium-Ion Microscope	Matthias Schmidt
A02.3	8/3/2021	10:45 AM	11:45 AM	249 - New Imaging modality for surface and sub-surface imaging using Scanning Transmission Helium Ion Microscopy	Saba Tabean
A02.3	8/3/2021	10:45 AM	11:45 AM	250 - Characterization of selective layer and biomolecules fouling in polymeric membranes for microalgae filtration applications using 3D FIB/SEM	Hélène Roberge
A02.3	8/3/2021	10:45 AM	11:45 AM	251 - Forward modeling of volume electron microscopy (vEM) of stained resin-embedded biological samples	Yu Yuan
A02.3	8/3/2021	10:45 AM	11:45 AM	252 - Comparison of segmentation algorithms for FIB/SEM tomography of porous polymers: Importance of image contrast for machine learning segmentation	Martin Čalkovský
A02.4	8/3/2021	12:30 PM	1:30 PM	323 - Multimodal characterisation on FIB instruments combining nano-scale SIMS and SE imaging	Tom Wirtz
A02.4	8/3/2021	12:30 PM	1:30 PM	324 - COMBINED FOCUSED ION BEAM AND SECONDARY ION MASS SPECTROMETRY FOR HIGH RESOLUTION LIGHT ELEMENT DETECTION APPLIED ON LI-ION BATTERIES	Gudrun Wilhelm
A02.4	8/3/2021	12:30 PM	1:30 PM	325 - Is the Helium Ion Microscope (Ne) suitable for EBSD sample preparation?	Annalena Wolff
A02.4	8/3/2021	12:30 PM	1:30 PM	326 - Nanocrystalline Diamond Grids for FIB Specimen Preparation and S/TEM Analytics	Lucille Giannuzzi
A02.4	8/3/2021	12:30 PM	1:30 PM	327 - In-situ Correlative Analysis of electrical and magnetic properties of Ion-beam treated surfaces by combination of AFM and FIB	Chistian Schwalb
A02.4	8/3/2021	12:30 PM	1:30 PM	328 - The virtual FIB: Simulating 3D in situ lift-out for visualization and technique development	Aleksander Mosberg
A03.1	8/2/2021	12:30 PM	1:30 PM	11 - Understanding Room Temperature Deformation of High-Strength Titanium Alloys	John Foltz
A03.1	8/2/2021	12:30 PM	1:30 PM	12 - Polarized Light Microscopy Coupled with Electron Backscatter Diffraction for 3D Serial Sectioning of Large Volumes of Twinned Titanium	Rodney McCabe

A03.1	8/2/2021	12:30 PM	1:30 PM	13 - Fast Automated Phase Differentiation in Industrial Stainless Steel by Combining Low-Loss EELS Experiments with Machine Learning-based Algorithms	Luc LAJAUNIE
A03.1	8/2/2021	12:30 PM	1:30 PM	14 - Laser-interference Surface Patterning of an AA2024-T3 Alloy: Chemistry and Sub-Surface Microstructure	Donovan Leonard
A03.1	8/2/2021	12:30 PM	1:30 PM	15 - Real World Application of EBSD Forward Models	William Lenthe
A03.2	8/2/2021	2:30 PM	3:30 PM	80 - CANCELLED - Manipulation of single atoms and molecules by electron probe and mechanical force	
A03.2	8/2/2021	2:30 PM	3:30 PM	81 - Single Molecule Microscopic Detection of Corrosion Reactions using "Turned-on" Fluorophores	Anuj Saini
A03.2	8/2/2021	2:30 PM	3:30 PM	82 - Correlative Imaging of Mesoporous Perovskite Carbon Stack Solar Devices for Defect Evaluation.	Tom Dunlop
A03.2	8/2/2021	2:30 PM	3:30 PM	83 - Integrated microscopic analysis of lamellar structure in isotactic polypropylene spherulite at nanoscale	Wen Qian
A03.2	8/2/2021	2:30 PM	3:30 PM	84 - Direct imaging of skyrmion in plan-view of a polycrystalline FeGe thin film	Binbin wang
A03.3	8/3/2021	10:45 AM	11:45 AM	253 - How Many Microscopies Does It Take to Get to the Root Cause of the Fail? Sample Prep, Imaging, and In-Situ Analysis for Integrated Circuit Failure Analysis at the 14nm Node	Lucile C Sheridan
A03.3	8/3/2021	10:45 AM	11:45 AM	254 - Highly Accurate and Portable 3D Surface Analysis Tool (APSA) for Printed Circuit Boards (PCB) Reconstruction and Assurance	Mukhil Azhagan Mallaiyan Sathiaseelan
A03.3	8/3/2021	10:45 AM	11:45 AM	255 - Strain measurements in industrial applications: A case study of solder bumps in semiconductor devices	Pawel Nowakowski
A03.3	8/3/2021	10:45 AM	11:45 AM	256 - The novel feature based inspection technique that can detect defects that can affect the deterioration of the electrical properties of semiconductor devices	Sungyoon Ryu
A03.3	8/3/2021	10:45 AM	11:45 AM	257 - Advanced quality control scanning system for electronic materials	Nathaly Castaneda
A03.4	8/3/2021	12:30 PM	1:30 PM	329 - Use of Full-Field X- ray Imaging and Ptychographic X-ray Computed Tomography for the Investigation of 3D Morphology of Micro-Nano Silver Materials for Advanced Electronics Packaging Applications	Stanislas Petrash
A03.4	8/3/2021	12:30 PM	1:30 PM	330 - Micro Computed Tomography Analysis of Four-Way Conversion Catalysts using Artificial Intelligence-Enabled Image Processing	Robert Palomino
A03.4	8/3/2021	12:30 PM	1:30 PM	331 - Multi-Energy X-Ray Computed Tomography for Source Rock Characterization	Airidas Korolkovas
A03.4	8/3/2021	12:30 PM	1:30 PM	332 - Metal Foams: Linking Dynamic CT Results to Simulation and Modeling	Andreas Grießer
A03.4	8/3/2021	12:30 PM	1:30 PM	333 - Dynamic X-ray micro-CT insights of the recovery of ore bodies in presence of clay	Jan Dewanckele
A03.5	8/3/2021	3:00 PM	4:00 PM	424 - The use of an XRF glass database to assign a significance to forensic evidence	Ruthmara Corzo
A03.5	8/3/2021	3:00 PM	4:00 PM	425 - Home- and Laboratory-based Microscopy of Face Covering Materials	Edward Vicenzi
A03.5	8/3/2021	3:00 PM	4:00 PM	426 - Quantitative X-ray mapping of Au-Ag ratios in native electrum from the Fire Creek epithermal vein deposit, Lander County, Nevada (USA)	William Nachlas
A03.5	8/3/2021	3:00 PM	4:00 PM	427 - Shining Through: Multi-Analytical Studies of the Tiffany Hartwell Memorial Window	Alicia McGeachy
A03.5	8/3/2021	3:00 PM	4:00 PM	428 - ChemiSEM: multimodal approach for faster quantitative elemental mapping.	Petr Wandrol

A03.6	8/4/2021	11:30 AM	12:30 PM	602 - Semi-Quantitative Analysis of Iron Nodules in Equilibrium Refining Catalysts by Artificial Intelligence-Augmented Scanning Electron Microscopy	Ke-Bin Low
A03.6	8/4/2021	11:30 AM	12:30 PM	603 - Structural Evolution in Zeolite Fluid Cracking Catalyst	Andrew Meng
A03.6	8/4/2021	11:30 AM	12:30 PM	604 - Electron Microscopy Contributions to Producing an Effective Germicide Photocatalyst	Rodney Herring
A03.6	8/4/2021	11:30 AM	12:30 PM	605 - Nanoparticle characterization by automated acquisition and analysis of images and EDS data in the TEM	Roger Maddalena
A03.6	8/4/2021	11:30 AM	12:30 PM	606 - Electron Microscopy of Co-catalyst CuO on Bi ₂ O ₃ -TiO ₂ Structures.	Hector Calderon
A03.6	8/4/2021	11:30 AM	12:30 PM	607 - Phase Identification in Aged Catalysts Using STEM Depth Sectioning and Electron Energy-Loss Spectroscopy	Cheng-Han Li
A03.7	8/4/2021	2:15 PM	3:15 PM	669 - Understanding moisture-induced mesopore formation in metal organic framework Cu ₃ (btc) ₂ using three-dimensional FIB/SEM analysis	Robert Colby
A03.7	8/4/2021	2:15 PM	3:15 PM	670 - Impact of Network Architecture on the Microstructure of PDMS/PMMA Hybrid Elastomers	Jeremy Beebe
A03.7	8/4/2021	2:15 PM	3:15 PM	671 - Analysis of the profile roughness of core-shell microparticles by electron microscopy	Deniz Hülägü
A03.7	8/4/2021	2:15 PM	3:15 PM	672 - Multimodal Characterization of Hierarchically Porous Nanocomposite Materials: The Case Study of the PEARL Membrane	Stephanie Ribet
A03.7	8/4/2021	2:15 PM	3:15 PM	673 - Migration of Erucamide in Polyethylene Films at Elevated Temperatures	Johnpeter Ngunjiri
A03.7	8/4/2021	2:15 PM	3:15 PM	674 - The Influence of Interfacial Chemistry on Bonding During High-velocity Impact of Microparticles	Xi Chen
A03.8	8/5/2021	10:00 AM	11:00 AM	835 - Engineering the Micro-texture of Zn Coating by Carbon Nanotube Incorporation for Enhanced Corrosion Resistance Behavior.	Kompella Jyotheender
A03.8	8/5/2021	10:00 AM	11:00 AM	836 - Simulating Electrochemical Performance of Solid-State Electrolyte Bilayers Characterized by FIB Tomography	Tanner Hamann
A03.8	8/5/2021	10:00 AM	11:00 AM	837 - Making electrodes by particle stamping for microscopic and electrochemical analysis	Jiyoung Son
A03.8	8/5/2021	10:00 AM	11:00 AM	838 - Transfer of lithium foil under inert conditions using CleanConnect inert gas transfer system	Krishna Kanth Neelisetty
A03.8	8/5/2021	10:00 AM	11:00 AM	839 - SEM-EDS coating thickness assessment: an insight into the accuracy of Monte Carlo simulations carried out for TiN coatings using three different freeware graphical user interface	Juan P.N. Cruz
A03.8	8/5/2021	10:00 AM	11:00 AM	840 - Correlating Microscopy Techniques for Understanding Root Cause of Defects in Coatings	Melinda Dent
A03.9	8/5/2021	12:45 PM	1:45 PM	907 - Microanalysis of Cd Whiskers on Cd Plated Long-Term Used Hardware	Sara Dickens
A03.9	8/5/2021	12:45 PM	1:45 PM	908 - Development and Application of Synthetic Hematite Reference Material for U-Pb Geochronology	Liam Courtney-Davies
A03.9	8/5/2021	12:45 PM	1:45 PM	909 - Terahertz Imaging to Map the Microporosity Distribution in Carbonate Rocks	Shannon Eichmann
A03.9	8/5/2021	12:45 PM	1:45 PM	910 - CARBON NANOTUBES AND NANO ZINC FERRITES: A NOBLE COMBINATION TO ENHANCE BIOMASS AND LENGTH OF SORGHUM BICOLOR	Dhirendra Kumar Tiwari

A03.9	8/5/2021	12:45 PM	1:45 PM	911 - Material prediction from confocal images of lasered samples	Adrian Phoulady
A03.9	8/5/2021	12:45 PM	1:45 PM	912 - Voice Control of the Scanning Electron Microscope Using a Low-Cost Virtual Assistant	David Holburn
A04.1	8/2/2021	12:30 PM	1:30 PM	16 - Prospects for In Situ TEM on Electrocatalyst Materials for Sustainable Energy Technologies	Robert Sinclair
A04.1	8/2/2021	12:30 PM	1:30 PM	17 - Graphene – A Promising Electrode Material in Liquid Cell Electrochemistry	Shu Fen Tan
A04.1	8/2/2021	12:30 PM	1:30 PM	18 - Hydrogen-Adsorption Induced Surface Segregation and Chemical Ordering in Cu-Pt Alloys	Zhilu Liang
A04.1	8/2/2021	12:30 PM	1:30 PM	19 - Understanding Structure-Property Relationships in Nanoparticle Electrocatalysts through Correlated Electron Microscopies	See Wee Chee
A04.2	8/2/2021	2:30 PM	3:30 PM	85 - In Situ Observations of the Dynamics of Pd@Pt Core-Shell Nanoparticles in Electrolyte	Xiaoqing Pan
A04.2	8/2/2021	2:30 PM	3:30 PM	86 - Elucidating Cathodic Corrosion Mechanisms with Operando Electrochemical Liquid-Cell STEM in Multiple Dimensions	Yao Yang
A04.2	8/2/2021	2:30 PM	3:30 PM	87 - In-situ Electron Microscopy Observation of Initiation and Propagation of Wet H ₂ S Corrosion on Steel	Majid Ahmadi
A04.2	8/2/2021	2:30 PM	3:30 PM	88 - In-Situ TEM Studies of High Entropy Alloy Nanoparticles Under Gas/Liquid Environment	Reza Shahbazian-Yassar
A04.3	8/3/2021	10:45 AM	11:45 AM	258 - Practical Aspects of Performing Quantitative EELS Measurements of Gas Compositions in Closed-Cell Gas Reaction S/TEM	Kinga Unocic
A04.3	8/3/2021	10:45 AM	11:45 AM	259 - Electron energy-loss spectroscopy for direct visualization of gas adsorption sites	Renu Sharma
A04.3	8/3/2021	10:45 AM	11:45 AM	260 - Resolution Models for Energy-Filtered TEM Imaging over Thick Liquid or Amorphous Layers	Eduardo Ortega
A04.3	8/3/2021	10:45 AM	11:45 AM	261 - Development of liquid cells for high resolution imaging and chemical analysis in situ with Transmission Electron Microscopy	Haimei Zheng
A04.4	8/3/2021	12:30 PM	1:30 PM	334 - Developing near-atomic-scale chemical analysis in liquid-phase S/TEM to study high capacity battery anodes	Eric Stach
A04.4	8/3/2021	12:30 PM	1:30 PM	335 - Beam-induced heating at low electron fluxes during liquid phase transmission electron microscopy	Birk Fritsch
A04.4	8/3/2021	12:30 PM	1:30 PM	336 - In-situ Liquid Electrochemical TEM Investigation of Semi Solid-State LMNO Micro-Battery	Ankush Bhatia
A04.4	8/3/2021	12:30 PM	1:30 PM	337 - The effect of interfaces in liquid phase electron microscopy from an empirical viewpoint	Patricia Abellan
A04.5	8/3/2021	3:00 PM	4:00 PM	429 - Describing Atomic-Level Fluxional Behavior in Nanoparticles	Peter Crozier
A04.5	8/3/2021	3:00 PM	4:00 PM	430 - In-situ ETEM observation of intergranular oxidation of copper	Xianhu Sun
A04.5	8/3/2021	3:00 PM	4:00 PM	431 - In situ Transmission Electron Microscopy for Data-driven Modeling of Nanoparticle Evolution	James Horwath
A04.5	8/3/2021	3:00 PM	4:00 PM	432 - Enabling Low-dose Liquid-phase TEM with Advanced Signal Processing, Machine Learning, and Molecular Simulation	John Smith

A04.5	8/3/2021	3:00 PM	4:00 PM	433 - Surface dynamics of catalytic nanoparticles in non-vacuum conditions	Thomas Hansen
A05.1	8/3/2021	12:30 PM	1:30 PM	338 - STEM-in-SEM: A Re-Emerging Material Measurement Approach*	Robert Keller
A05.1	8/3/2021	12:30 PM	1:30 PM	339 - Combining in situ heating with transmission diffraction and imaging in SEM for investigation of early stages of solid-state dewetting	Peter Denninger
A05.1	8/3/2021	12:30 PM	1:30 PM	340 - Analysis of superconducting thin films in a modern FIB/SEM dual-beam instrument	Lukas Grünewald
A05.1	8/3/2021	12:30 PM	1:30 PM	341 - STEM-tomography in SEM	Luyang Han
A05.1	8/3/2021	12:30 PM	1:30 PM	342 - NanoMi Open Source (S)TEM Platform: Initial SEM Implementation.	Marek Malac
A05.2	8/3/2021	3:00 PM	4:00 PM	434 - Characterization of Real Materials with Low Voltage STEM (30 kV): Current State and Challenges	Nicolas Brodusch
A05.2	8/3/2021	3:00 PM	4:00 PM	435 - An accurate Monte Carlo sampler for electron elastic scattering angular distributions between 50 eV and 300 keV	John Villarrubia
A05.2	8/3/2021	3:00 PM	4:00 PM	436 - 30 kV STEM-SEM – The Perfect Conditions for Transmission Spectroscopy?	Sam Marks
A05.2	8/3/2021	3:00 PM	4:00 PM	437 - Getting your Scanning Electron Microscope to Perform at Atomic Resolution Levels	Andras Vladar
A05.3	8/4/2021	11:30 AM	12:30 PM	608 - Diffraction contrast analysis of dislocations in 2D materials using true dark-field and 4D-STEM in SEM	Erdmann Spiecker
A05.3	8/4/2021	11:30 AM	12:30 PM	609 - Contrast and spatial resolution enhancement with the transmission mode in SEM	Ute Golla-Schindler
A05.3	8/4/2021	11:30 AM	12:30 PM	610 - A 4D STEM-in-SEM Analysis of Hexagonal Boron Nitride	Jason Holm
A05.3	8/4/2021	11:30 AM	12:30 PM	611 - Phase Retrieval Imaging for Soft Materials at Low-Voltage	Kelly Parker
A05.3	8/4/2021	11:30 AM	12:30 PM	612 - STEM-in-SEM and Cryo-EM Comparison using Simulation and Experiments for Interleukin 17A-FAB Complexes on Graphene	Jennifer Carpena-Núñez
A05.4	8/4/2021	2:15 PM	3:15 PM	675 - Methods of the electron induced cleaning in SEM	Ilona Müllerová
A05.4	8/4/2021	2:15 PM	3:15 PM	676 - Challenges and perspectives of Transmission Kikuchi Diffraction for nanocrystalline materials characterization	Alice Fanta
A05.4	8/4/2021	2:15 PM	3:15 PM	677 - Determining Lattice Parameters by Curve-Fitting Transmission Kikuchi Diffraction Patterns	Yueyun Chen
A05.4	8/4/2021	2:15 PM	3:15 PM	678 - Quantification and Mitigation of Electron-Beam-Induced Carbon Contamination	Milena Hugenschmidt
A06.1	8/2/2021	12:30 PM	1:30 PM	20 - Reimagining the Data-Driven Microscopy Paradigm	Steven Spurgeon
A06.1	8/2/2021	12:30 PM	1:30 PM	21 - Building an edge computing infrastructure for rapid multi-dimensional electron microscopy	DEBSINDHU Bhowmik
A06.1	8/2/2021	12:30 PM	1:30 PM	22 - Rapid and Semi-Automated Analysis of 4D-STEM data via Unsupervised Learning	Chugqiao Shi
A06.1	8/2/2021	12:30 PM	1:30 PM	23 - Smart Automation: Machine Learning Enabled Workflow for Logic and DRAM	John Flanagan
A06.1	8/2/2021	12:30 PM	1:30 PM	24 - Open-Source Tools and Containers for the Production of Large-Scale S/TEM Datasets	Alexander Rakowski
A06.2	8/2/2021	2:30 PM	3:30 PM	89 - Dynamic automation in transmission electron microscopy: application to electron holography	Christophe Gatel

A06.2	8/2/2021	2:30 PM	3:30 PM	90 - Automatic Hologram Acquisition of Pt Catalyst Nanoparticles on TiO ₂ Using Particle Detection with Image Processing and AI Classification	Fumiaki Ichihashi
A06.2	8/2/2021	2:30 PM	3:30 PM	91 - Reconstructing the exit wave in high-resolution transmission electron microscopy using machine learning	Jakob Schiøtz
A06.2	8/2/2021	2:30 PM	3:30 PM	92 - Routine collection of 10,000 direct detector movies a day using Legikon	Huihui Kuang
A06.2	8/2/2021	2:30 PM	3:30 PM	93 - Developing Deep Neural Network-based Denoising Techniques for Time-Resolved In Situ TEM of Catalyst Nanoparticles	Ramon Manzorro
A06.3	8/3/2021	10:45 AM	11:45 AM	262 - Advances in Machine Learning Based Modeling and Control of Particle Accelerators	Auralee Edelen
A06.3	8/3/2021	10:45 AM	11:45 AM	263 - Aberration Corrector Tuning with Machine-Learning-Based Emittance Measurements and Bayesian Optimization	Chenyu Zhang
A06.3	8/3/2021	10:45 AM	11:45 AM	264 - Aberration Measurement and Correction in Scanning Transmission Electron Microscopy using Machine Learning	Ryusuke Sagawa
A06.3	8/3/2021	10:45 AM	11:45 AM	265 - Adaptive Scanning in Ptychography through Deep Reinforcement Learning	Marcel Schloz
A06.3	8/3/2021	10:45 AM	11:45 AM	266 - Convolutional neural network as a tool for automatic alignment of electron optical beam shaping devices	Enzo Rotunno
A06.4	8/5/2021	10:00 AM	11:00 AM	841 - Deep Learning-Based Point-Scanning Super-Resolution Microscopy	Uri Manor
A06.4	8/5/2021	10:00 AM	11:00 AM	842 - Benchmark tests of atom-locating CNN models with a consistent dataset	Jingrui Wei
A06.4	8/5/2021	10:00 AM	11:00 AM	843 - Learning to Estimate the Composition of a Mixture with Synthetic Data	Cuong Ly
A06.4	8/5/2021	10:00 AM	11:00 AM	844 - Automated Data Labeling and Label Cleaning for Nanoparticle Classification in Electron Microscopy	Kate Groschner
A06.4	8/5/2021	10:00 AM	11:00 AM	845 - Automated Electron Beam Manipulation for Controlled Materials Transformations	Nicole Creange
A06.5	8/5/2021	12:45 PM	1:45 PM	913 - Materials and process discovery by correlated STEM imaging and spectroscopy with electrical testing	Andrew Wagner
A06.5	8/5/2021	12:45 PM	1:45 PM	914 - Causal Analysis of Parameterized Atomic HAADF-STEM Across a Doped Ferroelectric Phase Boundary	Christopher Nelson
A06.5	8/5/2021	12:45 PM	1:45 PM	915 - Predicting local plasmon resonances and geometries using autoencoder networks in complex nanoparticle assemblies	Kevin Roccapiore
A06.5	8/5/2021	12:45 PM	1:45 PM	916 - Towards Automating Structural Discovery in Scanning Transmission Electron Microscopy	Nicole Creange
A06.5	8/5/2021	12:45 PM	1:45 PM	917 - 4D >Crystal: Deep Learning Crystallographic Information From Electron Diffraction Images	Joydeep Munshi
A06.6	8/5/2021	2:45 PM	3:45 PM	982 - The role of Nanocartography in the Development of Automated TEM	Matthew Olszta
A06.6	8/5/2021	2:45 PM	3:45 PM	983 - Automating Electron Microscopy through Machine Learning and USETEM	Michael Xu
A06.6	8/5/2021	2:45 PM	3:45 PM	984 - Direct mapping of polarization fields from STEM images: A Deep Learning based exploration of ferroelectrics	Ayana Ghosh
A06.6	8/5/2021	2:45 PM	3:45 PM	985 - CANCELLED - A Simple Program for Fast Tilting Electron-Beam Sensitive Crystals to Zone Axes	

A06.6	8/5/2021	2:45 PM	3:45 PM	986 - Construction Zone: a software package for building complex nanoscale atomic scenes for applications in machine learning data generation pipelines	Luis Rangel DaCosta
A06.6	8/5/2021	2:45 PM	3:45 PM	987 - AtomAI: Open-source software for applications of deep learning to microscopy data	Maxim Ziatdinov
A07.1	8/3/2021	12:30 PM	1:30 PM	343 - 5D-STEM: Live processing and display at 15,000 diffraction patterns per second	Andreas Mittelberger
A07.1	8/3/2021	12:30 PM	1:30 PM	344 - Spectra optimizes the use of electron dose	Eric Van Cappellen
A07.1	8/3/2021	12:30 PM	1:30 PM	345 - A New Spectroscopic Imager for X-rays from 0.5 keV to 150 keV Combining a Fully Depleted pnCCD Coupled to a Columnar CsI(Tl) Scintillator with Fano Limited Energy Resolution and Deep Subpixel Spatial Resolution	Lothar Strueder
A07.1	8/3/2021	12:30 PM	1:30 PM	346 - Strategies for Multimodal Analysis of Joint EELS and EDS Data	Ray Twesten
A07.1	8/3/2021	12:30 PM	1:30 PM	347 - EELS Workshop: a Real-World Application of the Enabler Framework	Michael Kundmann
A07.1	8/3/2021	12:30 PM	1:30 PM	348 - Developments in sample preparation of advanced semiconductor devices from the bulk to nanometer-length scales	Cecile Bonifacio
A07.2	8/3/2021	3:00 PM	4:00 PM	438 - Thermo Scientific™ Tundra Cryo-TEM: 100kV Cryo-TEM dedicated for Single Particle Analysis	Zuzana Hlavenková
A07.2	8/3/2021	3:00 PM	4:00 PM	439 - A Novel Event-Based Active Pixel Sensor for Cryo-EM Electron Counting	Benjamin Bammes
A07.2	8/3/2021	3:00 PM	4:00 PM	440 - Falcon 4 performance validation by single event analysis	Jeroen Keizer
A07.2	8/3/2021	3:00 PM	4:00 PM	441 - New electron microscopy tools for characterizing air-sensitive samples.	Alpesh Shukla
A07.2	8/3/2021	3:00 PM	4:00 PM	442 - Semi-Automated Cryo-EM Sample Loader for TEM SPA Democratization	Vojtěch Doležal
A07.3	8/4/2021	11:30 AM	12:30 PM	613 - Large area EBSD mapping using a tilt-free configuration and direct electron detection sensor	Jakub Holzer
A07.3	8/4/2021	11:30 AM	12:30 PM	614 - Advances in EBSD sample preparation by broad ion beam milling	Laurie Palasse
A07.3	8/4/2021	11:30 AM	12:30 PM	615 - Dynamic Electron and X-ray Imaging is a Moving Experience	Simon Burgess
A07.3	8/4/2021	11:30 AM	12:30 PM	616 - Ensuring High Throughput in All Aspects of Automated Particle Analysis	Matt Hiscock
A07.3	8/4/2021	11:30 AM	12:30 PM	617 - Developments in controlled environmental transfer for Li-based battery materials: From sample preparation to SEM investigation	Pawel Nowakowski
A07.4	8/4/2021	2:15 PM	3:15 PM	679 - The novel approach to correlative microscopy using AFM-in-SEM and CPEM technology	Jan Neuman
A07.4	8/4/2021	2:15 PM	3:15 PM	680 - 3D Correlative Microscopy for Real World Problem Solving	Bartłomiej Winiarski
A07.4	8/4/2021	2:15 PM	3:15 PM	681 - Safe and Quantitative Analysis of Nuclear Materials From the Milli to Nano-Scale	Robert Ulfing
A07.4	8/4/2021	2:15 PM	3:15 PM	682 - Time resolved dynamic micro-CT imaging of food products in the lab	Frederik Coppens
A07.4	8/4/2021	2:15 PM	3:15 PM	683 - Challenges in Atom Probe Tomography Instrumentation and Reconstruction	David Reinhard
A08.1	8/3/2021	12:30 PM	1:30 PM	349 - Challenges and opportunities for data management and collaborative analysis in shared electron microscopy facilities	Josh Sugar
A08.1	8/3/2021	12:30 PM	1:30 PM	350 - Centralizing digital resources for data management, processing, and analysis for enterprise scale imaging research	Mike Marsh
A08.1	8/3/2021	12:30 PM	1:30 PM	351 - Probelab Relmager: A Multi-Platform, Open Source Software for Electron Image and X-ray Map Visualization and Customization	Mia Kraft

A08.1	8/3/2021	12:30 PM	1:30 PM	352 - Towards the Development of a Multi-Modal Community-Based AM Database	Rohan Casukhela
A08.1	8/3/2021	12:30 PM	1:30 PM	353 - The evolution of an open source file format: a version control story	Benjamin Savitzky
A08.2	8/3/2021	3:00 PM	4:00 PM	443 - Physics-guided machine learning: A new paradigm for scientific knowledge discovery	Xiaowei Jia
A08.2	8/3/2021	3:00 PM	4:00 PM	444 - Compression and Access to Arbitrary Data: The Low-hanging Fruit	Mia Kraft
A08.2	8/3/2021	3:00 PM	4:00 PM	445 - Towards Quantum Image Processing for Electron Microscopy	Roberto dos Reis
A08.2	8/3/2021	3:00 PM	4:00 PM	446 - Using py4DSTEM in GMS: Hybrid Open-Source, Commercial-Freeware Methods for Analyzing 4D STEM Datasets	Benjamin Miller
A08.2	8/3/2021	3:00 PM	4:00 PM	447 - CANCELLED - Aizen: Automated Big Data Processing, Management and Collaboration	
A09.1	8/4/2021	11:30 AM	12:30 PM	618 - Deciphering extreme mineral records; microstructural phase heritage of shocked materials	Timmons Erickson
A09.1	8/4/2021	11:30 AM	12:30 PM	619 - Structural Ordering and Composition of Warner Mountains Obsidian and its Microlites	Ellis Kennedy
A09.1	8/4/2021	11:30 AM	12:30 PM	620 - Evidence for highly depleted lower continental crust using an integrated microanalytical reconstitution approach	Robert Emo
A09.1	8/4/2021	11:30 AM	12:30 PM	621 - Combined Geochemical and Mineralogical Investigation of Gold Mineralized Quartz Veins at the Vertigo Target, White Gold District, Yukon, Canada	James Alexander
A09.1	8/4/2021	11:30 AM	12:30 PM	622 - Comprehensive Automated Thin-Section Characterization Combined with Quantitative Major-Trace Element Analysis on a Single SEM	Rosie Jones
A09.2	8/4/2021	2:15 PM	3:15 PM	684 - Quantitative Compositional Mapping of Particles from the Apollo 17 Core 73002	Sarah Valencia
A09.2	8/4/2021	2:15 PM	3:15 PM	685 - STEM-EELS-EDS Analysis of Space Weathering Features of ANGSA Lunar Soil Samples	Brittany Cymes
A09.2	8/4/2021	2:15 PM	3:15 PM	686 - Coordinated analyses on space weathering signatures on a Fe-sulfide grain from asteroid Itokawa	Laura Chaves
A09.2	8/4/2021	2:15 PM	3:15 PM	687 - Investigating space-weathering on the moon using APT	Jennika Greer
A09.3	8/5/2021	10:00 AM	11:00 AM	846 - High porosity fine-grained rims in CM Murchison revealed through sub-resolution XCT imaging with Xe gas	Romy Hanna
A09.3	8/5/2021	10:00 AM	11:00 AM	847 - Investigating Space Weathering Effects on Carbonaceous Asteroids Using High-flux and Low-flux Ion Irradiation of the Murchison Meteorite	Dara Laczniak
A09.3	8/5/2021	10:00 AM	11:00 AM	848 - DETERMINATION OF SULFUR SPECIATION IN APATITES FROM MARTIAN METEORITE- SHERGOTTY USING μ -XANES	Proteek Chowdhury
A09.3	8/5/2021	10:00 AM	11:00 AM	849 - Coordinated Electron Energy Loss and Energy Dispersive X-ray Spectroscopies of Organic Matter from Asteroids	Rhonda Stroud
A09.3	8/5/2021	10:00 AM	11:00 AM	850 - Compositional Analysis of Chondritic Sulfide Material: A Test of the Mass-Thickness Approach to Quantitative EDS in the TEM	Zega Thomas
A09.4	8/5/2021	12:45 PM	1:45 PM	918 - Microstructural features in carbonates from Antarctic micrometeorites: Effective tools for analyzing the evolution of small Solar System bodies	Elena Dobrica
A09.4	8/5/2021	12:45 PM	1:45 PM	919 - Isotopic, Structural and Chemical Analyses of Pre-Solar Silicates from Asymptotic Giant Branch Stars and Type-II Supernova Explosions	Luc LAJAUNIE

A09.4	8/5/2021	12:45 PM	1:45 PM	920 - TEM analyses of in situ presolar grains in pristine matrix material of ordinary chondrite Semarkona	Sheryl Singerling
A09.4	8/5/2021	12:45 PM	1:45 PM	921 - Coordinated Analyses of a Supernova Silicate Grain in the CO3.0 Chondrite Miller Range 07687	Laura Seifert
A09.4	8/5/2021	12:45 PM	1:45 PM	922 - Coordinated Analysis of a Metal-rich Nugget from a Calcium-aluminum-rich Inclusion.	Tarunika Ramprasad
A09.4	8/5/2021	12:45 PM	1:45 PM	923 - EPMA of Amphibole in Meteorites: Nakhilite Northwest Africa 13368 and Winonaite Northwest Africa 13432	Paul Carpenter
A10.1	8/3/2021	12:30 PM	1:30 PM	354 - Electron probe microanalysis of transition metals using L-lines: the effect of self-absorption	Xavier Llovet
A10.1	8/3/2021	12:30 PM	1:30 PM	355 - Universal Mean Atomic Number curves for EPMA calculated by Monte Carlo simulations	Aurélien Moy
A10.1	8/3/2021	12:30 PM	1:30 PM	356 - Use of spectrum simulation to optimise collection parameters for accurate and efficient WDS and EDS quantitative analyses	Philippe Pinard
A10.1	8/3/2021	12:30 PM	1:30 PM	357 - Using DTSA-II Tools for Electron-Excited X-ray Microanalysis of Thin Films	Dale Newbury
A10.1	8/3/2021	12:30 PM	1:30 PM	358 - Abilities Towards Improved Accuracy in EPMA	Frank Eggert
A10.2	8/3/2021	3:00 PM	4:00 PM	448 - Dispersed Organic Matter Analysis by Fast Soft X-Ray Mapping	Colin MacRae
A10.2	8/3/2021	3:00 PM	4:00 PM	449 - High Resolution X-Ray Spectra for Chemical Speciation in the SEM	Katherine Schreiber
A10.2	8/3/2021	3:00 PM	4:00 PM	450 - An experimental study using SXES: Evaluation and applications for a new analysis method to study the self-absorption effects of Fe L-emission	Takaomi Yokoyama
A10.2	8/3/2021	3:00 PM	4:00 PM	451 - Fundamental aspects of SXES in the Quantification of Minerals and Materials	Nicholas Wilson
A10.2	8/3/2021	3:00 PM	4:00 PM	452 - Fine structures of Fe L-emission examined by a new HR-SXES instrument	Masami Terauchi
A10.3	8/4/2021	11:30 AM	12:30 PM	623 - Approach for Quantifying Rare Earth Elements at Low keV	Heather Lowers
A10.3	8/4/2021	11:30 AM	12:30 PM	624 - EDS of Lithium Materials from 0.5 to 30 keV	Raynald Gauvin
A10.3	8/4/2021	11:30 AM	12:30 PM	625 - Quantifying Trace Element Variations in Chrysocolla by Clustering FEG-EPMA Hyperspectral Maps	Aaron Torpy
A10.3	8/4/2021	11:30 AM	12:30 PM	626 - Unresolved challenges in the microanalysis of actinides and nuclear materials	Philipp Pöml
A10.4	8/4/2021	2:15 PM	3:15 PM	688 - NeXL: A Platform for Innovation in Microanalysis	Nicholas Ritchie
A10.4	8/4/2021	2:15 PM	3:15 PM	689 - Improved quantitative chemical analyses of Cu(In,Ga)Se ₂ solar cells performed by STEM/EDXS	Xiaowei Jin
A10.4	8/4/2021	2:15 PM	3:15 PM	690 - A New Method for the XEDS ζ -factor Measurement Through Modulation of Beam Current.	Richard Webster
A10.4	8/4/2021	2:15 PM	3:15 PM	691 - Chemical Shift Detection with Energy Dispersive Spectroscopy (EDS)	Rebekah Jin
A10.4	8/4/2021	2:15 PM	3:15 PM	692 - First Light on the Argonne PicoProbe and The X-ray Perimeter Array Detector (XPAD)	Nestor Zaluzec
A11.1	8/5/2021	10:00 AM	11:00 AM	851 - Advancements in portable and lab based XRF instrumentation for analysis in cultural heritage: A change in perspective	Aaron Shugar
A11.1	8/5/2021	10:00 AM	11:00 AM	852 - Identification of Bronze Workshops using p-XRF and ICP-MS in Angkor Thom, Cambodia	Nicole Little

A11.1	8/5/2021	10:00 AM	11:00 AM	853 - Elemental Mapping of Jade by pXRF and SEM-based Micro-XRF: A Comparative Study	Thomas Lam
A11.1	8/5/2021	10:00 AM	11:00 AM	854 - Quantitative Analysis of Obsidian and Determination of Source Provenance Using an Analytical Dual Beam SEM	Edward Vicenzi
A11.2	8/5/2021	12:45 PM	1:45 PM	924 - On the Surface: Reflectance FTIR Spectroscopy in Cultural Heritage Research	Joan Walker
A11.2	8/5/2021	12:45 PM	1:45 PM	925 - Micro reflectance imaging spectroscopy for pigment identification in painting cross sections	Marc Vermeulen
A11.2	8/5/2021	12:45 PM	1:45 PM	926 - An in-depth look at how physical properties of cleaning materials affect the removal of soot from rough papers	Teresa Duncan
A11.2	8/5/2021	12:45 PM	1:45 PM	927 - Nanoscale IR spectroscopy: From Principles to Nanoscale Imaging and Identification of Metal Soaps	Andrea Centrone
A11.3	8/5/2021	2:45 PM	3:45 PM	988 - NIR Luminescence and Composition of Egyptian Blue as Markers in Archaeometric Evaluations	Admir Masic
A11.3	8/5/2021	2:45 PM	3:45 PM	989 - Hyperspectral and Multispectral Reflectance Imaging of Paintings	Pamela Betts
A11.3	8/5/2021	2:45 PM	3:45 PM	990 - Orpiment in Colonial Williamsburg: Challenges with the Identification of Yellow Arsenic Sulphides in Historic Housepaints]	Kirsten Moffitt
A11.3	8/5/2021	2:45 PM	3:45 PM	991 - Novel Portable Laser Ablation Micro-Sampling in Cultural Heritage	Alice Knaf
A12.1	8/2/2021	12:30 PM	1:30 PM	25 - Biominerals for biomacromolecule stabilization and delivery	William Murphy
A12.1	8/2/2021	12:30 PM	1:30 PM	26 - High-throughput Characterization of CaCO ₃ Mineralization in Genetically Engineered Organisms	Alex Lin
A12.1	8/2/2021	12:30 PM	1:30 PM	27 - Biomimetic Self-Assembly and Structural Observation of Amino Acid Nanomaterials using Electron Microscopy	Sameera Wickramasinghe
A12.1	8/2/2021	12:30 PM	1:30 PM	28 - Bio-inspired structurally colored materials	Ming Xiao
A12.2	8/2/2021	2:30 PM	3:30 PM	94 - Use of Melanin for Structural Colors	Ali Dhinojwala
A12.2	8/2/2021	2:30 PM	3:30 PM	95 - Low dose EBSD analysis of biominerals	Rene de Kloe
A12.2	8/2/2021	2:30 PM	3:30 PM	96 - Micro-scale Mineralogy and Imaging Reveal Polymorph Variance in Microbially Precipitated Calcium Carbonate	Neerja Zambare
A12.2	8/2/2021	2:30 PM	3:30 PM	97 - Species-specific foraminiferal ultrastructures modulate surfaces available for diagenesis	Deyanira Cisneros-Lazaro
B01.1	8/2/2021	12:30 PM	1:30 PM	29 - Interpreting Cytoskeletal Filaments in Cryo-Electron Tomograms with Shape-Constrained Deconvolution	Willy Wriggers
B01.1	8/2/2021	12:30 PM	1:30 PM	30 - FSC-Q: Analyzing the quality of cryoEM-derived models	Jose Maria Carazo
B01.1	8/2/2021	12:30 PM	1:30 PM	31 - Local computational methods to improve the interpretability and analysis of cryo-EM maps	Satinder kaur
B01.1	8/2/2021	12:30 PM	1:30 PM	32 - Automatic analysis of cryo-electron tomography using computer vision and machine learning	Min Xu
B01.2	8/2/2021	2:30 PM	3:30 PM	98 - Visualizing Transmissive Mutant Huntingtin by Correlative Light and Electron Microscopy and Cryo-electron Tomography	Wei Dai

B01.2	8/2/2021	2:30 PM	3:30 PM	99 - Reconstructing 3D Volumes of Biological Specimens Using a Model Based Iterative Approach	Cheri Hampton
B01.2	8/2/2021	2:30 PM	3:30 PM	100 - Cryo-ET Characterization of Novel Cellular Extrusions in Escherichia coli Induced by the Major Subunit Protein of Type IV Pili, PilA, from Pseudomonas aeruginosa	Juan Sanchez
B01.2	8/2/2021	2:30 PM	3:30 PM	101 - Visualizing cadherin intermembrane adhesion assemblies using cryo-electron tomography	Micah Rapp
B01.3	8/3/2021	10:45 AM	11:45 AM	267 - Hybrid structural methods to probe atomic features of the Type III Secretion Injectisome of Pathogenic Bacteria	Natalie Strynadka
B01.3	8/3/2021	10:45 AM	11:45 AM	268 - Inhibition of bacterial binding through dysfunction of bacterial adhesion pili	Matthew Doran
B01.3	8/3/2021	10:45 AM	11:45 AM	269 - CANCELLED - Cryo-Electron Tomography of Microtubules and Granules in Mouse Platelets	
B01.3	8/3/2021	10:45 AM	11:45 AM	270 - Cryo-EM structure of F-actin decorated by HMM in rigor state	Alimohammad Hojjatian
B01.3	8/3/2021	10:45 AM	11:45 AM	271 - The Myosin II Coiled-Coil Domain Atomic Structure in its Native Environment	Hamidreza Rahmani
B01.4	8/3/2021	12:30 PM	1:30 PM	359 - Neutralizing antibodies against coronaviruses	Pamela Bjorkman
B01.4	8/3/2021	12:30 PM	1:30 PM	360 - The role of the ASPL-TFE3 fusion protein in Alveolar Soft Part Sarcoma	Shuxin Wang
B01.4	8/3/2021	12:30 PM	1:30 PM	361 - Cryo-EM reveals architecture and domain interactions of putative tumor suppressor ALDH1L1, a product of natural fusion of three unrelated genes	Yaroslav Tsybovsky
B01.4	8/3/2021	12:30 PM	1:30 PM	362 - Cryo-EM structure of the bullet-shaped GroEL-GroES complex at 3.6 Å resolution	Olga Sokolova
B01.4	8/3/2021	12:30 PM	1:30 PM	363 - Structural determination of the Dicer-2•R2D2 complex	Helen Donelick
B02.1	8/4/2021	2:15 PM	3:15 PM	693 - Molecular views into cellular functions by in-cell cryo-electron tomography	Julia Mahamid
B02.1	8/4/2021	2:15 PM	3:15 PM	694 - Waffle Method for optimizing cryo-FIB-milling	Alex Noble
B02.1	8/4/2021	2:15 PM	3:15 PM	695 - New hardware for a streamlined cryo focused ion beam milling workflow	Sebastian Tacke
B02.1	8/4/2021	2:15 PM	3:15 PM	696 - Democratising in situ structural biology: when a field becomes a tool	Alex de Marco
B02.2	8/5/2021	10:00 AM	11:00 AM	855 - Multiscale models of bacterial cell-cell interactions	Martin Pilhofer
B02.2	8/5/2021	10:00 AM	11:00 AM	856 - Montage cryo-electron tomography: imaging a large field-of-view without sacrificing resolution	Ariana Peck
B02.2	8/5/2021	10:00 AM	11:00 AM	857 - Micropatterning of electron microscopy grids for improved cellular cryo-electron tomography throughput	Leeya Engel
B02.2	8/5/2021	10:00 AM	11:00 AM	858 - Bridging length-scales from molecules to tissues using mouse genetics, cryoCLEM, and cryoET	Rene Frank
B02.2	8/5/2021	10:00 AM	11:00 AM	859 - Electron Tomography Workflows using Scipion	Jorge Jiménez
B02.3	8/5/2021	12:45 PM	1:45 PM	928 - Explore the complexity of proteins with an expanded CryoET data processing pipeline	Muyuan Chen
B02.3	8/5/2021	12:45 PM	1:45 PM	929 - Using Maskless Photopatterning for Cryo-ET of Primary Drosophila Melanogaster Neurons	Joseph Kim
B02.3	8/5/2021	12:45 PM	1:45 PM	930 - Ultrastructural Analysis of Cytoskeletal Networks in Neuronal Growth Cones by Light and Electron Microscopy	Ryan Hylton

B02.3	8/5/2021	12:45 PM	1:45 PM	931 - Extracellular Vesicles Modulate Formation of Transmissive Mutant Huntingtin Assemblies	Kyle Nunn
B02.3	8/5/2021	12:45 PM	1:45 PM	932 - The molecular basis for sarcomere organization in vertebrate skeletal muscle	Zhexin Wang
B02.4	8/5/2021	2:45 PM	3:45 PM	992 - Molecular architecture of the flagellar export apparatus reveals membrane remodeling and conformational changes crucial for flagellar assembly	Jun Liu
B02.4	8/5/2021	2:45 PM	3:45 PM	993 - Form and function of the condensed bacterial nucleoid studied by cryo-ET	Daniel Parrell
B02.4	8/5/2021	2:45 PM	3:45 PM	994 - Peeking into the plant cell wall using cryo-FIB milling and electron cryo-tomography	William Nicolas
B02.4	8/5/2021	2:45 PM	3:45 PM	995 - Sparse cryo-STEM tomography for biological samples	Antoine Cossa
B02.4	8/5/2021	2:45 PM	3:45 PM	996 - Deposition-free Cryo-FIB Lift-out Transfer for Cryo-Electron Tomography Specimen Preparation	Sven Klumpe
B03.1	8/5/2021	10:00 AM	11:00 AM	860 - Multi-Scale Imaging of Connectomes With Photons and Electrons	Wei-Chung Lee
B03.1	8/5/2021	10:00 AM	11:00 AM	861 - Correlating analytical microscopy reveals quantitative alterations to the structure, chemistry and materials properties of tooth enamel exposed to acidic solutions.	Louise Hughes
B03.1	8/5/2021	10:00 AM	11:00 AM	862 - Morphological Object Localization: A Novel Image Analysis Pipeline for Quantitative Spatial Localization of Biomolecule Signal from Fluorescence Microscopy Data	Andrew Soltisz
B03.1	8/5/2021	10:00 AM	11:00 AM	863 - MoBIE: A free and open-source platform for integration and cloud-based sharing of multi-modal correlative big image data	Christian Tischer
B03.2	8/5/2021	12:45 PM	1:45 PM	933 - Image archiving at EMBL-EBI - EMPIAR and the BioImage Archive	Gerard Kleywegt
B03.2	8/5/2021	12:45 PM	1:45 PM	934 - Implementing a storage and compute server to enhance processing of big imaging data.	Jonathan Boyd
B03.2	8/5/2021	12:45 PM	1:45 PM	935 - Solutions for Data management and Correlative Data Fusion by ZEISS	Martin Kuttge
B03.2	8/5/2021	12:45 PM	1:45 PM	936 - Next Generation File Formats and Platforms	Joshua Moore
B03.3	8/5/2021	2:45 PM	3:45 PM	997 - CEM500K – A large-scale heterogeneous unlabeled cellular electron microscopy image dataset for deep learning.	Ryan Conrad
B03.3	8/5/2021	2:45 PM	3:45 PM	998 - High-Resolution Imaging of Single-Cell Behaviors in 3D Bacterial Biofilms using Lattice-Light Sheet Microscopy and Deep Learning-Based Image Processing	Andreas Gahlmann
B03.3	8/5/2021	2:45 PM	3:45 PM	999 - Tools and Approaches for Assembly, Review, and Analysis of Large-Scale Electron Microscopy	Bryan Jones
B04.1	8/3/2021	12:30 PM	1:30 PM	364 - Structural biology of large molecular complexes - what we learned from the master	Hao Wu
B04.1	8/3/2021	12:30 PM	1:30 PM	365 - Structure of the capsid size-determining scaffold of "satellite" bacteriophage P4	James Kizziah
B04.1	8/3/2021	12:30 PM	1:30 PM	366 - HBV Core-Directed Antivirals and Importin β Can Synergistically Disrupt Capsids	Christine Kim
B04.1	8/3/2021	12:30 PM	1:30 PM	367 - Quaternary epitope landscape of Zika virus antibody complexes	Madhumati Sevana
B04.1	8/3/2021	12:30 PM	1:30 PM	368 - Structure determination of the mature Usutu SAAR-1776 virus using single particle cryo-electron microscopy	Baldeep Khare
B04.2	8/3/2021	3:00 PM	4:00 PM	453 - Understanding the structure and function of spliceosome through cryo-EM	Rui Zhao

B04.2	8/3/2021	3:00 PM	4:00 PM	454 - ICAM-1 induced re-arrangements of capsid and genome prime rhinovirus 14 for activation and uncoating	Dominik Hrebik
B04.2	8/3/2021	3:00 PM	4:00 PM	455 - Cryo-EM structural analysis of the SARS-CoV-2 Nucleocapsid protein	Michael Casasanta
B04.2	8/3/2021	3:00 PM	4:00 PM	456 - CryoEM Map-Model Scores: From Average Density to Q-scores	Grigore Pintilie
B04.2	8/3/2021	3:00 PM	4:00 PM	457 - Adding "colors" to cryo-EM: extracting local chemical data from radiation damage	Gabriel Frank
B04.3	8/4/2021	11:30 AM	12:30 PM	627 - Structural Studies of Giant Viruses	Chuan Xiao
B04.3	8/4/2021	11:30 AM	12:30 PM	628 - Structures of the capsid and the tail of Myoviridae bacteriophage TaPaz, revealed by cryo-EM	Olga Sokolova
B04.3	8/4/2021	11:30 AM	12:30 PM	629 - Determining the Patchwork Lattice of Ebola and Marburg Virus Matrix Layers Using Cryo-Electron Tomography	William Wan
B04.3	8/4/2021	11:30 AM	12:30 PM	630 - Tracking structural intermediates during Chikungunya virus membrane fusion using cryo-electron tomography and sub-tomogram averaging	Vidya Mangala Prasad
B04.3	8/4/2021	11:30 AM	12:30 PM	631 - Technological improvements for whole cell cryo-ET of respiratory syncytial virus infected cells	Bryan Sibert
B05.1	8/2/2021	12:30 PM	1:30 PM	33 - Visualizing microscale heterogeneity of pharmaceutical samples - from solid dosages to living cells	Dan Fu
B05.1	8/2/2021	12:30 PM	1:30 PM	34 - Estimation of the structural heterogeneity of Tick-Borne Encephalitis vaccine particles	Olga Sokolova
B05.1	8/2/2021	12:30 PM	1:30 PM	35 - Advancing TEM Based Biomedical Nanoparticle Characterization: GMP validated TEM Workflow In a BSL2 Environment with CNN as Automated Analytical Tool	Mathieu Colomb-Delsuc
B05.2	8/2/2021	2:30 PM	3:30 PM	102 - Optimizing Throughput for Cryo-EM Data Collection in Drug Discovery	Stephen Mick
B05.2	8/2/2021	2:30 PM	3:30 PM	103 - The operation of SEM-EDS analysis in a regulated environment	Anthony Hyde
B05.2	8/2/2021	2:30 PM	3:30 PM	104 - Unlocking secrets of inhalation blends through X-ray Computed Tomography and Microscopy	Hrishikesh Bale
B05.2	8/2/2021	2:30 PM	3:30 PM	105 - Cloud-based image management solutions for digital transformation of drug product development	Shawn Zhang
B06.1	8/2/2021	12:30 PM	1:30 PM	37 - CANCELLED - Emerging imaging technologies to study cell architecture, dynamics and function	
B06.1	8/2/2021	12:30 PM	1:30 PM	38 - Label-free fluorescence predictions from large-scale correlative light and electron microscopy data	Ryan Lane
B06.1	8/2/2021	12:30 PM	1:30 PM	39 - Multi-modal characterization of collagen fibril orientation in human cortical bone by a combination of quantitative polarized Raman spectroscopy, nanoscale X-ray computed tomography and 360° electron tomography	Tatiana Kormilina
B06.1	8/2/2021	12:30 PM	1:30 PM	40 - Organic and elemental correlative imaging by using synchrotron light for illuminating molecular disorders in ALS relevant cells	Tanja Ducic
B06.2	8/2/2021	2:30 PM	3:30 PM	106 - Multi-modal correlative chemical imaging of aquatic microorganisms	Vivian Merk
B06.2	8/2/2021	2:30 PM	3:30 PM	107 - Real-Time Image Registration via A Deep Learning Approach for Correlative X-ray and Electron Microscopy	Yanqi Luo

B06.2	8/2/2021	2:30 PM	3:30 PM	108 - Characterizing the localization of organic C on mineral surfaces: a correlative microscopy/spectroscopy approach	Odetta Qafoku
B06.2	8/2/2021	2:30 PM	3:30 PM	109 - In-situ multi-modal microscopy using finely focused ion and electron beams	Tom Wirtz
B07.1	8/3/2021	12:30 PM	1:30 PM	369 - DeepSerialBlockFace: Machine denoising and object segmentation for volume electron microscopy	Jeffrey Caplan
B07.1	8/3/2021	12:30 PM	1:30 PM	370 - CANCELLED - MAP-2 as an early marker of hippocampal damage after perinatal asphyxia and neuroprotective properties of Palmitoylethanolamide.	
B07.1	8/3/2021	12:30 PM	1:30 PM	371 - Utility of scanning electron microscopy backscatter imaging for serial-sections reconstruction and postembedding immunogold detection of vesicular glutamate transporter 1 (VGLUT1) in the presynaptic terminals of the cingulate cortex	Cheryl Clarkson-Paredes
B07.1	8/3/2021	12:30 PM	1:30 PM	372 - Electron microscopy explorations of the human brain: using immunofluorescence to address challenges	Kristina Micheva
B07.2	8/3/2021	3:00 PM	4:00 PM	458 - Ultrastructure of immunogenic cell death in vivo	Zuzana Tatarova
B07.2	8/3/2021	3:00 PM	4:00 PM	459 - Automated & Programmable Electron Microscopy Preparation	Steven Goodman
B07.2	8/3/2021	3:00 PM	4:00 PM	460 - Attachment of Suspension Cells for TEM Processing	Han Chen
B07.2	8/3/2021	3:00 PM	4:00 PM	461 - Developing and Applying a Correlative Light and Electron Microscopy Technique to Overcome Inherent Transmission Electron Microscopy Shortcomings.	Jonathan Franks
B07.3	8/4/2021	11:30 AM	12:30 PM	632 - Imaging the structure of the plasma membrane with platinum replica and cryogenic electron microscopy and tomography of unroofed cells.	Justin Taraska
B07.3	8/4/2021	11:30 AM	12:30 PM	633 - Biofilm integrity and cytomorphology of Candida albicans after exposure to UV-light on ZnO thin films: SEM Analysis	Carlos Arzate-Quintana
B07.3	8/4/2021	11:30 AM	12:30 PM	634 - Visualization of extracellular polymeric substances in Aspergillus niger biofilms using lectin-conjugates and confocal laser scanning microscopy (CLSM)	Aswathy Shailaja
B07.3	8/4/2021	11:30 AM	12:30 PM	635 - Expansion Pathology: Nanoscale Imaging of Clinical Specimens with Optical Microscopy	Yongxin Zhao
B07.4	8/4/2021	2:15 PM	3:15 PM	697 - Electron Microscopy Research in Musculoskeletal Infection	Bingyun Li
B07.4	8/4/2021	2:15 PM	3:15 PM	698 - Custom Cryo-Chips as a method of enriching and imaging disease-related oncoproteins	Maria Solares
B07.4	8/4/2021	2:15 PM	3:15 PM	699 - VitroJet: advanced control and ease of use in cryo-EM sample preparation	Giulia Weissenberger
B07.4	8/4/2021	2:15 PM	3:15 PM	700 - SARS-CoV-2, a Newly Emergent Coronavirus	Cynthia Goldsmith
B08.1	8/5/2021	10:00 AM	11:00 AM	864 - From concept to reality: cryoEM as an integral part of drug discovery and development	Corey Strickland
B08.1	8/5/2021	10:00 AM	11:00 AM	865 - Real-time cryo-EM structure determination for drug discovery	Ali Punjani
B08.1	8/5/2021	10:00 AM	11:00 AM	866 - Small Molecule Microcrystal Electron Diffraction (MicroED) for the Pharmaceutical Industry – Results from Examining Over Fifty Samples	Jessica Bruhn
B08.1	8/5/2021	10:00 AM	11:00 AM	867 - Integration of Cryo-EM into Drug Discovery	Sarah Hymowitz
B08.2	8/5/2021	12:45 PM	1:45 PM	937 - Structural Studies of an Anti-SARS-CoV-2 Antibody Cocktail	Matthew Franklin
B08.2	8/5/2021	12:45 PM	1:45 PM	938 - Broad Neutralization of H1 and H3 Viruses by Adjuvanted Influenza HA Stem Vaccines in Non-human Primates	Yu Qiu

B08.2	8/5/2021	12:45 PM	1:45 PM	939 - Cryo-EM structures of human PRMT5:MEP50 complex reveal chemical basis for designing high-specificity inhibitors	GAYA YADAV
B08.2	8/5/2021	12:45 PM	1:45 PM	940 - Advances in Cryo-EM structure-based methods in membrane protein drug discovery	Michael Hennig
B08.2	8/5/2021	12:45 PM	1:45 PM	941 - CryoEM in industry: challenges and opportunities	Giovanna Scapin
B09.1	8/3/2021	12:30 PM	1:30 PM	373 - "To fix, or not to fix" Biological Specimens at a Multi-User Electron Microscopy Facility	DeAna Grant
B09.1	8/3/2021	12:30 PM	1:30 PM	374 - Bot-graphy: an original technique for plant anatomy study based on metallography	Ricardo Montero
B09.1	8/3/2021	12:30 PM	1:30 PM	375 - To fix or not fix biofilms to study microbial soil aggregation	Yuchen Zhang
B09.1	8/3/2021	12:30 PM	1:30 PM	376 - To Fix Or Not To Fix.	Elaine Humphrey
B09.2	8/3/2021	3:00 PM	4:00 PM	462 - The Good, the Bad and the Ugly: Task-Specific Fixation for Connective Tissues	Douglas Keene
B09.2	8/3/2021	3:00 PM	4:00 PM	463 - To Cryo or Not to Cryo? A Consideration of Length Scales During Macromolecule Sample Preparation	Kelly Parker
B09.2	8/3/2021	3:00 PM	4:00 PM	464 - Soft Microscopy of Negative Stained Soft Materials: Balancing Dose Rate and Sample Damage	Chamille Lescott
B09.2	8/3/2021	3:00 PM	4:00 PM	465 - What do we know about stain distribution in cells and tissue? Using EDS to determine the quantity and distribution of common EM stains.	Louise Hughes
B09.2	8/3/2021	3:00 PM	4:00 PM	466 - Autofluorescence For Rapid Visualization of Plant Anatomy Among Diverse Taxa	Timothy Pegg
B10.1	8/3/2021	10:45 AM	11:45 AM	272 - The Scottish Centre for Macromolecular Imaging - Evaluation of the JEOL CryoARM 300 and Direct Electron DE64 combination for automated cryoEM in a national cryo-EM centre.	David Bhella
B10.1	8/3/2021	10:45 AM	11:45 AM	273 - A modular 100 keV vacuum sealed FEG for high resolution electron microscopy	Mohamed El-Gomati
B10.1	8/3/2021	10:45 AM	11:45 AM	274 - Challenges of offering cryo-EM services to National and International users during an extended lockdown period.	Ludo Renault
B10.1	8/3/2021	10:45 AM	11:45 AM	275 - CU-Boulder Center for Cryo-Electron Microscopy (CCET)	Andreas Hoenger
B10.2	8/3/2021	12:30 PM	1:30 PM	377 - High Resolution Data Collection at S2C2, a National CryoEM Center	Corey Hecksel
B10.2	8/3/2021	12:30 PM	1:30 PM	378 - Real-time cryo-EM structure determination	Ali Punjani
B10.2	8/3/2021	12:30 PM	1:30 PM	379 - Accurately measuring ice thickness quickly and quantitatively on a screening TEM	Hamish Brown
B10.2	8/3/2021	12:30 PM	1:30 PM	380 - Cryo Electron Microscopy at the Bio21 Ian Holmes Imaging Center and in the wider Australian microscopy community	Eric Hanssen
B10.3	8/3/2021	3:00 PM	4:00 PM	467 - Connected Through Imaging: Development of a National Network Cryo-Electron Tomography Centers	Elizabeth Wright
B10.3	8/3/2021	3:00 PM	4:00 PM	468 - User experience: Using national Cryo EM centers towards studying lipid transport across the bacterial cell envelope	Gira Bhabha
B10.3	8/3/2021	3:00 PM	4:00 PM	469 - Cross-Training to shared standards at the national cryoEM centers using "Merit Badges"	Christina Zimanyi

B10.4	8/4/2021	11:30 AM	12:30 PM	636 - Image collection strategies for single particle cryoEM	Farzad Jalali-Yazdi
B10.4	8/4/2021	11:30 AM	12:30 PM	637 - Structural and functional analysis of p47 cofactor binding on the p97 disease mutant	Purbasha Nandi
B10.4	8/4/2021	11:30 AM	12:30 PM	638 - User access to Cryo-EM at EMSL: Opportunities Linking Omics and Structural Biology	James Evans
B10.4	8/4/2021	11:30 AM	12:30 PM	639 - Overview of Pacific Northwest Center for Cryo-EM (PNCC): State-of-the-art electron microscopy and computational resource access free-of-charge for bioscience community	Irina Novikova
B11.1	8/3/2021	10:45 AM	11:45 AM	276 - High-Throughput Super-Resolution Microscopy for Reconstructing Molecular Architecture	Suliana Manley
B11.1	8/3/2021	10:45 AM	11:45 AM	277 - Visualization of nanostructural dislocations in microcrystalline cellulose fibrils through super-resolution fluorescence microscopy	Mouhanad Babi
B11.1	8/3/2021	10:45 AM	11:45 AM	278 - pixOL: pixel-wise point spread function engineering for measuring the 3D orientation and 3D location of dipole-like emitters	Tingting Wu
B11.1	8/3/2021	10:45 AM	11:45 AM	279 - Optimizing Point Spread Functions to Discern Highly Overlapping Emission Spectra	Sanduni Fernando
B11.1	8/3/2021	10:45 AM	11:45 AM	280 - Computational Recovery of Engineered Point Spread Functions in Single Molecule Localization Microscopy using the Double Helix 3DTRAX Software	Scott Gaumer
B11.2	8/3/2021	12:30 PM	1:30 PM	381 - Real-Time 3D Super-Resolution Fluorescence Lifetime Imaging Microscopy, in vivo	Scott Howard
B11.2	8/3/2021	12:30 PM	1:30 PM	382 - Fluorescence lifetime imaging microscopy of early C. elegans embryo development	Rupsa Datta
B11.3	8/3/2021	3:00 PM	4:00 PM	470 - MINFLUX: next generation access to the nanoscale	Francisco Balzarotti
B11.3	8/3/2021	3:00 PM	4:00 PM	471 - Elucidating the nanoscale architecture of amyloid aggregates using a polarized donut point spread function	Tianben Ding
B11.3	8/3/2021	3:00 PM	4:00 PM	472 - Quantitative Assessment of Cardiac Intercalated Disk Ultrastructure and Molecular Organization by Indirect Correlative Light and Electron Microscopy	Heather Struckman
B11.3	8/3/2021	3:00 PM	4:00 PM	473 - Capturing Single Molecule Dynamics: An Advanced Microscope Combining Optical Tweezers with Fluorescence Detection Modules	Jason Lin
P01.1	8/2/2021	12:30 PM	1:30 PM	41 - Atomic-Scale Vibrational and Electronic Response of Interfaces in Heterostructures for Spintronics Applications	Quentin Ramasse
P01.1	8/2/2021	12:30 PM	1:30 PM	42 - In Situ Visualization of the Electron Wind Force in the Elastic Regime	Matthew Mecklenburg
P01.1	8/2/2021	12:30 PM	1:30 PM	43 - Spatially-resolved STEM-EELS of waveguide modes	Christian Dwyer
P01.1	8/2/2021	12:30 PM	1:30 PM	44 - Nanoscale STEM/EELS and Theory Investigations of Vibronic Properties of Superlattices	Eric Hoglund
P01.1	8/2/2021	12:30 PM	1:30 PM	45 - Magnetism and phonons in transmission electron microscopy	Jan Ruzs
P01.2	8/2/2021	2:30 PM	3:30 PM	110 - Quantify doping efficiency at the nanoscale using monochromated STEM-EELS	Hongbin Yang
P01.2	8/2/2021	2:30 PM	3:30 PM	111 - Substrate Effects on the Phonon Response of Individual Dielectric Nanostructures	Ka Yin Lee
P01.2	8/2/2021	2:30 PM	3:30 PM	112 - The frequency resolved frozen phonon method for vibrational STEM-EELS	Paul Zeiger

P01.2	8/2/2021	2:30 PM	3:30 PM	113 - Tailored nanoscale plasmon-enhanced vibrational electron spectroscopy	Luiz H. G. Tizei
P01.2	8/2/2021	2:30 PM	3:30 PM	114 - Beyond NMF: Advanced Signal Processing and Machine Learning Methodologies for Hyperspectral Analysis in EELS	Jordan Hachtel
P01.3	8/3/2021	10:45 AM	11:45 AM	281 - Probing Properties of Nanomaterials with Advanced Electron Energy-Loss Spectroscopy	Peter Crozier
P01.3	8/3/2021	10:45 AM	11:45 AM	282 - Thermometry of Nanoparticles: Technique, Pitfalls and Challenges	Bibash Sapkota
P01.3	8/3/2021	10:45 AM	11:45 AM	283 - Nanoparticle Chains for Plasmonic Band Engineering	Johannes Schultz
P01.3	8/3/2021	10:45 AM	11:45 AM	284 - STEM-EELS Analysis of High Entropy Oxide Nanoparticles	Abhijit Phakatkar
P01.3	8/3/2021	10:45 AM	11:45 AM	285 - Coupling of Photonic and Plasmonic Modes in Oxide and Supported Metal Nanoparticles: Finite Element Simulation and EELS Study	Yifan Wang
P01.4	8/3/2021	12:30 PM	1:30 PM	383 - Electron effective mass determination across a β -(Al _{0.2} Ga _{0.8}) ₂ O ₃ // β -Ga ₂ O ₃ interface by Kramers-Kronig analysis	Adrian Chmielewski
P01.4	8/3/2021	12:30 PM	1:30 PM	384 - Understanding transition metal dichalcogenide absorption line widths in electron energy loss spectroscopy	Fuhui SHAO
P01.4	8/3/2021	12:30 PM	1:30 PM	385 - Probing Electronic Structures of Monolayer WSe ₂ Stacked with hBN Using Correlative Cathodoluminescence and Electron Energy-Loss Spectroscopy	Wei-Chang Yang
P01.4	8/3/2021	12:30 PM	1:30 PM	386 - Examining Defect Creation at Interfaces in Electrocatalytically Cycled LaFeO ₃ -SrTiO ₃ Thin Films	Bethany Matthews
P01.4	8/3/2021	12:30 PM	1:30 PM	387 - Denoising STEM Electron Energy Loss Spectra using Convolutional Autoencoders	Mark Oxley
P01.4	8/3/2021	12:30 PM	1:30 PM	388 - The oxidation state of Ti in hibonite at the atomic scale	Pierre-marie Zanetta
P01.5	8/3/2021	3:00 PM	4:00 PM	474 - Spatial Mapping of Electrostatics and Dynamics in Quantum Materials	Akshay Murthy
P01.5	8/3/2021	3:00 PM	4:00 PM	475 - Quantifying the projected unit cell size variation of off-axis PtCo catalyst nanoparticles through 4D-STEM	Debangshu Mukherjee
P01.5	8/3/2021	3:00 PM	4:00 PM	476 - Automated mapping of the crystallographic sample orientation from diffraction patterns in momentum-resolved STEM	Mauricio Cattaneo
P01.5	8/3/2021	3:00 PM	4:00 PM	477 - A robust technique to image all elements in LiNiO ₂ cathode active material by 4D-STEM	Shamail Ahmed
P01.5	8/3/2021	3:00 PM	4:00 PM	478 - Improving 4DSTEM measurements of atomic charge and electrostatic potential via energy filtration	Thomas Pekin
P01.5	8/3/2021	3:00 PM	4:00 PM	479 - Observation of a charged incoherent BiFeO ₃ /SrTiO ₃ interface	Christopher Addiego
P01.6	8/4/2021	11:30 AM	12:30 PM	640 - Analytical STEM for metal-organic frameworks (MOFs) and MOF composites	Sean Collins
P01.6	8/4/2021	11:30 AM	12:30 PM	641 - Fluence-dependent electron energy loss spectroscopy mapping for beam-sensitive polymers	Robert Colby
P01.6	8/4/2021	11:30 AM	12:30 PM	642 - 3D Spatial Mapping of the Nanomorphology of Polymer:Fullerene Blends by Highly Selective, Homogeneous Copper Staining	Yonghe Li
P01.6	8/4/2021	11:30 AM	12:30 PM	643 - Characterizing Multivalent Metal Anodes with Cryogenic Electron Microscopy	Daniel Long
P01.6	8/4/2021	11:30 AM	12:30 PM	644 - Transmission ion microscopy and time-of-flight spectroscopy	Michael Mousley

P01.7	8/4/2021	2:15 PM	3:15 PM	701 - Insights into the Defect Structure Resulting from the Hydrogen Absorption in Palladium Nanocubes Using Liquid Cell Transmission Electron Microscopy	Sophia Betzler
P01.7	8/4/2021	2:15 PM	3:15 PM	702 - In-situ NiO nanostructure growth during heating in water vapor atmosphere	Boyi Qu
P01.7	8/4/2021	2:15 PM	3:15 PM	703 - Combining in situ micro-photoluminescence and cathodoluminescence to understand defects photophysics in nanodiamonds	Noémie Bonnet
P01.7	8/4/2021	2:15 PM	3:15 PM	704 - Using in situ electron energy-loss spectroscopy (EELS) and X-ray fluorescence microscopy (XFM) to characterize Co-Pt nanoparticles	Alexandre Foucher
P01.7	8/4/2021	2:15 PM	3:15 PM	705 - In-Situ Transmission Electron Microscopy: Electron Beam Effects in Carbon-based Nanomaterials	Zhehan Ying
P01.8	8/5/2021	10:00 AM	11:00 AM	868 - Reaching for atomic-scale quantitative energy dispersive X-ray spectroscopy	Katherine MacArthur
P01.8	8/5/2021	10:00 AM	11:00 AM	869 - Evaluation of Optimum Instrument Conditions for the Best Spatial Resolution in Atomic-Column X-ray Analysis toward Quantification	Masashi WATANABE
P01.8	8/5/2021	10:00 AM	11:00 AM	870 - Identifying Individual Atoms in Single Atom Pt/CeO ₂ Catalysts	Stephen Porter
P01.8	8/5/2021	10:00 AM	11:00 AM	871 - Quantitative STEM for Bimetallic Catalyst Nanoparticles	Xiaonan Luo
P01.8	8/5/2021	10:00 AM	11:00 AM	872 - Automated methods for improved characterization of alloy nanoparticle catalysts	David Cullen
P01.9	8/5/2021	12:45 PM	1:45 PM	942 - Real-Time 3D Analysis During Tomographic Experiments on tomviz	Jonathan Schwartz
P01.9	8/5/2021	12:45 PM	1:45 PM	943 - Automating 3D Imaging of Inorganic Nanoparticles	Tom Slater
P01.9	8/5/2021	12:45 PM	1:45 PM	944 - Promoting Protective Scale Formation at Lower Temperatures via Surface Finishing: Effects on the Establishment, Structure, and Chemistry in Haynes 214 High-Temperature Oxidation-Resistant Nickel Alloy	Stephen House
P01.9	8/5/2021	12:45 PM	1:45 PM	945 - Nano-scale imaging and spectroscopy of interfaces in (Co,Cu,Mg,Ni,Zn)O high entropy oxides	hasti vahidi
P01.9	8/5/2021	12:45 PM	1:45 PM	946 - Structural and chemical properties of superconducting rare-earth barium copper oxide/BaHfO ₃ nanocomposites with rare-earth mixtures	Lukas Grünewald
P01.9	8/5/2021	12:45 PM	1:45 PM	947 - Crystalline Phase Control in Sc _x Al _{1-x} N Grown by Molecular Beam Epitaxy	Andrew Lang
P02.1	8/5/2021	12:45 PM	1:45 PM	948 - Light Element Analysis in Extraterrestrial Materials using Secondary Ion Mass Spectrometry	Maitrayee Bose
P02.1	8/5/2021	12:45 PM	1:45 PM	949 - Sample Preparation and Coordinated Analysis for Characterization of Organic Matter in Return Samples from the Carbonaceous Asteroids Ryugu and Bennu	Bradley De Gregorio
P02.1	8/5/2021	12:45 PM	1:45 PM	950 - Adjustment to the Light Element Areal Concentration Calculation for Neutron Depth Profiles	Jamie Weaver
P02.1	8/5/2021	12:45 PM	1:45 PM	951 - Advancing the in-situ characterization of light elements via X-ray absorption spectroscopy using superconducting detectors	Charles Titus
P02.2	8/5/2021	2:45 PM	3:45 PM	1000 - Application of ζ -factor Microanalysis to Measure Phase Compositions in Ultrahard Ceramics and Complex Concentrated Alloys	Christopher Marvel
P02.2	8/5/2021	2:45 PM	3:45 PM	1001 - Evolution of NV centers in nanodiamond using in situ heating with STEM-EELS/EDS	Bethany Hudak
P02.2	8/5/2021	2:45 PM	3:45 PM	1002 - Mechanisms of Li Leaching from a LiCO ₃ Based Primer / Topcoat Paint System	Alexander Glenn

P02.2	8/5/2021	2:45 PM	3:45 PM	1003 - Toward interpretable, wide field-of-view transmission electron microscopy techniques for imaging light atoms	Hamish Brown
P03.1	8/4/2021	2:15 PM	3:15 PM	706 - Mapping Atomic Motions with Ultrabright Electrons: Fundamental Space-Time Limits to Imaging Chemistry and Biological Processes	R. J. Dwayne Miller
P03.1	8/4/2021	2:15 PM	3:15 PM	707 - Fast electron low dose tomography for beam sensitive materials	Daniel Arenas Esteban
P03.1	8/4/2021	2:15 PM	3:15 PM	708 - A flexible electron interferometer demonstrating live phase imaging and interaction-free measurements	Amy Turner
P03.1	8/4/2021	2:15 PM	3:15 PM	709 - Observing atomic resolution dynamics of soft materials with controlling dose rate	Fu-Rong Chen
P03.2	8/5/2021	10:00 AM	11:00 AM	874 - Investigating electron beam interactions with nanoparticle capping ligands using correlative liquid phase transmission electron microscopy and fluorescence microscopy	Thilini Dissanayake
P03.2	8/5/2021	10:00 AM	11:00 AM	875 - Radiolysis Characterization in Liquid Cell STEM Using Ultra Low-Dose Electron Energy-Loss Spectroscopy	Liam Spillane
P03.2	8/5/2021	10:00 AM	11:00 AM	876 - Direct imaging on the deformation and sintering of polymeric particles at the nanoscale by liquid-phase TEM	Chang Liu
P03.2	8/5/2021	10:00 AM	11:00 AM	877 - Visualizing non-classical formation pathways of alloyed nanocrystals with liquid phase transmission electron microscopy	Taylor Woehl
P03.2	8/5/2021	10:00 AM	11:00 AM	952 - Using Molecular Dynamics Simulations to Understand Electron Beam Interactions with Macromolecules in Liquid-phase Transmission Electron Microscopy	Qian Chen
P03.3	8/5/2021	12:45 PM	1:45 PM	873 - "no-dose" imaging	Heiner Friedrich
P03.3	8/5/2021	12:45 PM	1:45 PM	953 - Using cryo-TEM to study the effect of side-chain chemistry on the crystal motifs in polypeptoid nanosheets	Morgan Seidler
P03.3	8/5/2021	12:45 PM	1:45 PM	954 - Holey-Gold Films on Molybdenum Grids for Cryogenic Electron Microscopy Imaging of 2D Polymer Crystals	Xi Jiang
P03.3	8/5/2021	12:45 PM	1:45 PM	955 - Understanding graphene's role as a protective substrate for atomic-resolution electron microscopy of small organic molecules	Blanka Janicek
P03.3	8/5/2021	12:45 PM	1:45 PM	956 - Electron Diffraction of Graphene-covered Protein Crystals at Room Temperature	Sercan Keskin
P03.4	8/5/2021	2:45 PM	3:45 PM	1004 - Nanoscale functional chemistry and opto-electronic response of organic materials	Demie Kepaptsoglou
P03.4	8/5/2021	2:45 PM	3:45 PM	1005 - Electron beam modification of plasmonic responses of nanoparticles	Kevin Roccapiore
P03.4	8/5/2021	2:45 PM	3:45 PM	1006 - Quantifying fluxional behavior in catalytic CeO ₂ nanoparticles: toward thermodynamic insight into the stability of surface atomic structures	Ramon Manzorro
P03.4	8/5/2021	2:45 PM	3:45 PM	1007 - Atomic-scale Feedback-controlled Electron Beam Fabrication of 2D Materials	Matthew Boebinger
P04.1	8/2/2021	12:30 PM	1:30 PM	46 - Probing phonon propagation in materials by angle-resolved and angle-averaged vibrational EELS	Toshihiro Aoki
P04.1	8/2/2021	12:30 PM	1:30 PM	47 - Moiré Angle Dependent Excitonic Absorption in Twisted Bilayer WSe ₂ by EELS	Steffi Woo
P04.1	8/2/2021	12:30 PM	1:30 PM	48 - Unveiling nanoscale optical and structural properties of TMD monolayers using combined electron spectroscopies	Noémie Bonnet

P04.1	8/2/2021	12:30 PM	1:30 PM	49 - Off-axis Electron Holography on 2D Materials with Small Coherent and Incoherent Aberrations	Axel Lubk
P04.1	8/2/2021	12:30 PM	1:30 PM	50 - Revealing Abnormal Phonon Polaritons Confined at the Edge of Curved Two-Dimensional Boron Nitride	Xingxu Yan
P04.2	8/2/2021	2:30 PM	3:30 PM	115 - In situ cryo-electron microscopy of two-dimensional van der Waals magnets	Myung-Geun Han
P04.2	8/2/2021	2:30 PM	3:30 PM	116 - In-Situ Magnetization Reversal Mechanism in Ni Nanowires Investigated by Electron Holography	Arturo Galindo
P04.2	8/2/2021	2:30 PM	3:30 PM	117 - Structural changes in metallic nanoislands on 2D materials during in situ annealing in ultra-high vacuum TEM	Kate Reidy
P04.2	8/2/2021	2:30 PM	3:30 PM	118 - TEM Studies of Nanoscale Phase Transformation during in-situ reaction of Li with 2D Materials (MoS ₂ , WS ₂ , Graphite)	Chanchal Ghosh
P04.2	8/2/2021	2:30 PM	3:30 PM	119 - Controlling the Nucleation of Metal Nanoislands on Two-dimensional Materials via Focused Ion Beam Patterning	Vera Zarubin
P04.3	8/3/2021	10:45 AM	11:45 AM	286 - Unidirectional Assembly on Distorted Two-Dimensional Crystal Substrates	Kwanpyo Kim
P04.3	8/3/2021	10:45 AM	11:45 AM	287 - S/TEM Characterization of Vertical Heterostructures Formed by Mono- to Multi-layer Graphene and WSe ₂	Saiphaneendra Bachu
P04.3	8/3/2021	10:45 AM	11:45 AM	288 - Two-dimensional charge order stabilized in clean polytype heterostructures	Suk Hyun Sung
P04.3	8/3/2021	10:45 AM	11:45 AM	289 - Synthesis and self-assembly of one-dimensional nanostructures of a transition metal trichalcogenide	Thang Pham
P04.3	8/3/2021	10:45 AM	11:45 AM	290 - Deep Learning Enabled Atom-by-Atom Analysis of 2D materials on the Million-Atom Scale	Chia-Hao Lee
P05.1	8/4/2021	11:30 AM	12:30 PM	645 - The formation of high burnup structure in U-Mo fuels	Charlyne Smith
P05.1	8/4/2021	11:30 AM	12:30 PM	646 - Laboratory-based 3D X-ray microscopy of unirradiated U-10Zr fuel	Nikolaus Cordes
P05.1	8/4/2021	11:30 AM	12:30 PM	647 - Cryo-TEM Characterization of the Early Stages of the Uranium Oxalate Growth Evolution	Karen Kruska
P05.1	8/4/2021	11:30 AM	12:30 PM	648 - Three-Dimensional Characterization of Oxide Fuel Utilizing Focused Ion Beam Tomography	Casey McKinney
P05.2	8/4/2021	2:15 PM	3:15 PM	710 - Image-driven discriminative and generative methods for establishing microstructure-processing relationships relevant to nuclear fuel processing pipelines	Elizabeth Kautz
P05.2	8/4/2021	2:15 PM	3:15 PM	711 - Deep Learning-Based Workflow for Analyzing Helium Bubbles in Transmission Electron Microscopy Images	Chun Yin Wong
P05.2	8/4/2021	2:15 PM	3:15 PM	712 - 4D-STEM Imaging of nanostructural heterogeneities in Ni-20Cr after corrosion in molten salt	Yang Yang
P05.2	8/4/2021	2:15 PM	3:15 PM	713 - Development and Deployment of Automated Machine Learning Detection in Electron Microscopy Experiments	Kevin G. Field
P05.3	8/5/2021	10:00 AM	11:00 AM	878 - In-situ Irradiation, Helium Implantation and Heating to Elucidate Mechanisms in Tungsten Alloys	Khalid Hattar
P05.3	8/5/2021	10:00 AM	11:00 AM	879 - In Situ Grain Growth of Nanograined Magnetite under Ion Irradiation at Room Temperature and 500 °C	Ryan Schoell

P05.3	8/5/2021	10:00 AM	11:00 AM	880 - In situ TEM investigation of irradiation-induced amorphization of Fe ₃ O ₄ and γ - Fe ₂ O ₃	Angelica Lopez Morales
P05.3	8/5/2021	10:00 AM	11:00 AM	881 - Understanding Strain And Irradiation Segregation In Fusion Materials	Andrew London
P05.4	8/5/2021	12:45 PM	1:45 PM	957 - Influence of Irradiation-Induced Defects on Anion Transport in Epitaxial Cr ₂ O ₃	Kayla Yano
P05.4	8/5/2021	12:45 PM	1:45 PM	958 - Evolution of Defect States from Different Starting States in La _{1-x} Sr _x FeO ₃ Thin Films	Bethany Matthews
P05.4	8/5/2021	12:45 PM	1:45 PM	959 - Advanced Characterization Techniques Enabling Commercial Development of Accident Tolerant Fuel Cladding	Andrew Hoffman
P05.4	8/5/2021	12:45 PM	1:45 PM	960 - Radiation-induced mixing and demixing behavior in metallic multilayers exhibiting limited solid miscibility	Madhavan Radhakrishnan
P05.5	8/5/2021	2:45 PM	3:45 PM	1008 - Structural Alloys in Light Water Reactor Systems: Role of Microscopy in the Mitigation of Environmentally-Assisted Cracking Through Surface Optimisation	M.G. Burke
P05.5	8/5/2021	2:45 PM	3:45 PM	1009 - Microstructural Insights into Pb-Caustic Stress Corrosion Cracking in Alloy 690TT	Giulia Mazzei
P05.5	8/5/2021	2:45 PM	3:45 PM	1010 - Advances in the Development of White-Light Interferometry for In-Situ Uranium Hydride Kinetic Data Collection	Yaakov Idell
P05.5	8/5/2021	2:45 PM	3:45 PM	1011 - Application of Atom Probe Tomography as a Method to Investigate Localized Thermal Transport in Actinide-Bearing Oxides	Amrita Sen
P05.5	8/5/2021	2:45 PM	3:45 PM	1012 - Novel nuclear materials characterization workflows enabled by fs-laser milling	Stephen Kelly
P05.5	8/5/2021	2:45 PM	3:45 PM	1013 - Nano-CT and Electron Microscopy Cross-correlative Study of Tritiated LiAlO ₂ Pellet Nanopores	Bethany Matthews
P06.1	8/3/2021	10:45 AM	11:45 AM	291 - Advances in heteroepitaxial integration of III-V and IV-VI semiconductors with electron channeling contrast imaging	Kunal Mukherjee
P06.1	8/3/2021	10:45 AM	11:45 AM	292 - Quantitative misfit dislocation characterization with electron channeling contrast imaging	Marzieh Baan
P06.1	8/3/2021	10:45 AM	11:45 AM	293 - Defect analysis of star defects in GaN thin films grown on HVPE GaN substrates	Tim Ruggles
P06.1	8/3/2021	10:45 AM	11:45 AM	294 - Failure Analysis in FeCo Magnetic Alloys through Electron Channeling Contrast Imaging Defect Characterization	Julia Deitz
P06.2	8/3/2021	12:30 PM	1:30 PM	389 - STEM-based analysis of functional defects in ferroelectric ErMnO ₃	Antonius T. J. van Helvoort
P06.2	8/3/2021	12:30 PM	1:30 PM	390 - Space- and Angle-Resolved Vibrational Spectroscopy to Probe the Local Phonon Modes at Planar Defects	Xingxu Yan
P06.2	8/3/2021	12:30 PM	1:30 PM	391 - Measuring NV Centers in Diamond Nanoparticles using Electron Energy Loss Spectroscopy	Shery Chang
P06.2	8/3/2021	12:30 PM	1:30 PM	392 - Combined iDPC and EELS analyses for quantifying oxygen vacancy concentration in LSMO	Aubrey Penn
P06.2	8/3/2021	12:30 PM	1:30 PM	393 - Generation of Ruddlesden-Popper faults in Sr doped NdNiO ₃	Chao Yang
P06.3	8/3/2021	3:00 PM	4:00 PM	480 - TEMImageNet, AtomSegNet and TomoFillNet, open-source libraries and models that enable defect localization in 2D and 3D atomic resolution images	Huolin Xin

P06.3	8/3/2021	3:00 PM	4:00 PM	481 - Virtual Electron Backscatter Diffraction for Multiscale Defect Characterization	Chaoyi Zhu
P06.3	8/3/2021	3:00 PM	4:00 PM	482 - Automatic detection of crystallographic defects in STEM images by unsupervised learning with translational invariance	Yueming Guo
P06.3	8/3/2021	3:00 PM	4:00 PM	483 - Deep Learning-based Computer Vision for Radiation Defect Analysis: from Static Defect Segmentation to Dynamic Defect Tracking	Yuanyuan Zhu
P06.4	8/4/2021	11:30 AM	12:30 PM	649 - Probing the Strain Fields of Single-Atom Defects in 2D materials with Sub-Picometer Precision	Pinshane Huang
P06.4	8/4/2021	11:30 AM	12:30 PM	650 - Real-time imaging of atomic electrostatic potentials in 2D materials with 30 keV electrons	Sytze de Graaf
P06.4	8/4/2021	11:30 AM	12:30 PM	651 - A new planar defect in SiGe nanopillars	Hongbin Yang
P06.4	8/4/2021	11:30 AM	12:30 PM	652 - Quantitative Mapping of Strain Defects in Multidomain Quantum Materials	Michelle Smeaton
P06.4	8/4/2021	11:30 AM	12:30 PM	653 - Analysis and Dynamics of Extended Atomic Defects in Coalesced WS ₂ Monolayer Films	Danielle Reifsnnyder Hickey
P06.5	8/4/2021	2:15 PM	3:15 PM	714 - Direct atomistic defect observations by depth sectioning and dynamic STEM	Ryo Ishikawa
P06.5	8/4/2021	2:15 PM	3:15 PM	715 - Point Defects and Alloy Incorporation in Ultrawide Bandgap β -(Al _x Ga _{1-x}) ₂ O ₃ Films	Hsien-Lien Huang
P06.5	8/4/2021	2:15 PM	3:15 PM	716 - Probing point and planar defects in multiferroic YFeO ₃ thin films	Abinash Kumar
P06.5	8/4/2021	2:15 PM	3:15 PM	717 - Three-dimensional imaging of single dopants inside crystals using multislice electron ptychography	Zhen Chen
P06.5	8/4/2021	2:15 PM	3:15 PM	718 - Electron Beam Control of Dopants in 2D and 3D Materials	Andy Lupini
P06.6	8/5/2021	10:00 AM	11:00 AM	882 - Probing defects in nanostructures with high spatial and energy resolution	Nasim Alem
P06.6	8/5/2021	10:00 AM	11:00 AM	883 - Show me your "Hand": Direct determination of "handedness" in NaCu ₅ S ₃ chiral crystal via aberration-corrected scanning transmission electron microscopy	Chi Zhang
P06.6	8/5/2021	10:00 AM	11:00 AM	884 - Atomic-scale deciphering the defect-related structure and doping behavior of transition metal in SnO ₂ nanoparticles	Woo-Sung Jang
P06.6	8/5/2021	10:00 AM	11:00 AM	885 - Structural defects in ZnO thin films grown by atomic layer deposition at low temperatures	Arturo Ponce
P06.6	8/5/2021	10:00 AM	11:00 AM	886 - Cepstral Scanning Transmission Electron Microscopy Imaging of Disordered Crystals using Coherent Diffuse Scattering	Jian-Min Zuo
P06.7	8/5/2021	12:45 PM	1:45 PM	961 - Dislocation imaging via the virtual dark-field technique using the precession electron diffraction data	dexin zhao
P06.7	8/5/2021	12:45 PM	1:45 PM	962 - An Atomic Level Study of Localized Strain Fields on Multiple Low-Index Ceria (CeO ₂) Nanoparticle Surfaces	Piyush Haluai
P06.7	8/5/2021	12:45 PM	1:45 PM	963 - Investigation of the effect of helium ion (He ⁺) irradiation on the fluorescence properties of microdiamonds grown by chemical vapour deposition	Muhammad Salman Maqbool
P06.7	8/5/2021	12:45 PM	1:45 PM	964 - Impact of Electric Fields on Grain Boundary Atomic and Electronic Structures	Klaus van Benthem
P06.7	8/5/2021	12:45 PM	1:45 PM	965 - Twist boundary defects in penta-twinned silver nanowires	Alexander Eggeman
P06.7	8/5/2021	12:45 PM	1:45 PM	966 - Effect of Cation Point Defects in Doped Ceria Materials on Surface Oxygen Vacancies and Exchange Reactions	Mai Tan

P06.8	8/5/2021	2:45 PM	3:45 PM	1014 - Studying clusters and nano-precipitates in Aluminium alloys using SPED and ADF-STEM	Randi Holmestad
P06.8	8/5/2021	2:45 PM	3:45 PM	1015 - In situ TEM Investigation of the Electroplasticity Phenomenon on Dislocation Behavior in Ti-6wt%Al	Xiaoqing Li
P06.8	8/5/2021	2:45 PM	3:45 PM	1016 - Cores of $1/2\langle 110 \rangle$ -type dislocations in the CrMnFeCoNi high-entropy alloy investigated by STEM, the center of symmetry and the Nye tensor mapping techniques	Milan Heczko
P06.8	8/5/2021	2:45 PM	3:45 PM	1017 - Disconnection-mediated twin junction migration mechanism in FCC metals	Thomas Kaufman
P06.8	8/5/2021	2:45 PM	3:45 PM	1018 - Direct electron imaging of dislocation activities in nanocrystalline molybdenum nanopillars	Haw-Wen Hsiao
P07.1	8/2/2021	12:30 PM	1:30 PM	51 - Imaging the spatial distribution of π^* states in graphene using aberration-corrected and monochromated STEM-EELS: towards orbital mapping	Matthieu Bugnet
P07.1	8/2/2021	12:30 PM	1:30 PM	52 - Advances in Momentum Resolved EELS	Benjamin Plotkin-Swing
P07.1	8/2/2021	12:30 PM	1:30 PM	53 - Structural and chemical analysis of mixed cation antiferromagnetic layered metal chalcophosphate FeCoP ₂ S ₆	Matthew Cheng
P07.1	8/2/2021	12:30 PM	1:30 PM	54 - Interplay between structural and electronic properties with the metal-insulator transition in NdNiO ₃ thin films	Y. Eren Suyolcu
P07.1	8/2/2021	12:30 PM	1:30 PM	55 - Correlating inhomogeneity in anionic electron density with hydrogen incorporation in Y ₅ Si ₃ electrides	Kartik Venkatraman
P07.2	8/2/2021	2:30 PM	3:30 PM	120 - Atomic-resolution STEM-EELS to probe and stabilize superconductivity in thin films	Lena Kourkoutis
P07.2	8/2/2021	2:30 PM	3:30 PM	121 - Emergent chirality in a polar meron to skyrmion transition revealed by 4D-STEM	Yu-Tsun Shao
P07.2	8/2/2021	2:30 PM	3:30 PM	122 - Impact of the Synthesis Kinetics of Entropy-stabilized Oxide Thin Films Probed with 4D-STEM and STEM-EELS	Leixin Miao
P07.2	8/2/2021	2:30 PM	3:30 PM	123 - Atomic scale understanding of the electronic structure of 5d-3d perovskite oxide heterostructures using STEM-EELS.	Sandhya Susarla
P07.2	8/2/2021	2:30 PM	3:30 PM	124 - Interplay between Polar Distortions and Superconductivity in SrTiO ₃	Salva Salmani-Rezaie
P07.3	8/3/2021	10:45 AM	11:45 AM	295 - Structure-Transport Properties of Topological Nanowires	Judy Cha
P07.3	8/3/2021	10:45 AM	11:45 AM	296 - Cryogenic Lorentz TEM study of a Berezinskii–Kosterlitz–Thouless phase transition in the quasi-two-dimensional ferromagnet K ₂ CuF ₄ ?	Yoshihiko Togawa
P07.3	8/3/2021	10:45 AM	11:45 AM	297 - Tracking motion of topological defects in a stripe charge-ordered phase with continuously variable temperature cryo-STEM	Noah Schnitzer
P07.3	8/3/2021	10:45 AM	11:45 AM	298 - Identification of Topological Spin Textures in Frustrated Fe ₃ Sn ₂ Magnetic System	Kai He
P07.3	8/3/2021	10:45 AM	11:45 AM	299 - Innovative Electron Microscopy for Multi-Layer van der Waals Heterostructures Quantum Materials Discovery	David Bell
P07.4	8/3/2021	12:30 PM	1:30 PM	394 - Exploring electronic coupling of optical and phonon excitations at the nanoscale	Juan Carlos Idrobo
P07.4	8/3/2021	12:30 PM	1:30 PM	395 - Phonon Reflections from Nanostructured Interfaces Imaged by Momentum-Averaged and Resolved Vibrational EELS	Chaitanya Gadre

P07.4	8/3/2021	12:30 PM	1:30 PM	396 - A STEM/EELS study of interfaces in delafossite-based quantum heterostructures	Sangmoon Yoon
P07.4	8/3/2021	12:30 PM	1:30 PM	397 - Electron energy loss spectroscopy of sub-10 nm 2D MoS2 crystals	Pawan Kumar
P07.4	8/3/2021	12:30 PM	1:30 PM	398 - Bayesian Inference for Materials Physics from STEM Data: The Probability Distribution of Physical Parameters from Ferroelectric Domain Wall Observations	Christopher Nelson
P07.5	8/3/2021	3:00 PM	4:00 PM	484 - Novel insights in optical properties of nanomaterials allowed by high resolution EELS and cathodoluminescence	Mathieu Kociak
P07.5	8/3/2021	3:00 PM	4:00 PM	485 - Correlative Luminescence and Absorption Spectroscopy from Monolayer WSe2 at the Nanoscale	Steffi Woo
P07.5	8/3/2021	3:00 PM	4:00 PM	486 - 2-Grating Inelastic Free Electron Interferometry	Cameron Johnson
P07.5	8/3/2021	3:00 PM	4:00 PM	487 - Imaging Hybrid Plasmon-Phonon Modes in Mid-Infrared Antennas	Maureen Joel Lagos
P08.1	8/4/2021	2:15 PM	3:15 PM	719 - Additive Manufacturing of structural materials for nuclear application and rapid mesoscale mechanical testing	Peter Hosemann
P08.1	8/4/2021	2:15 PM	3:15 PM	720 - Post-Irradiation Analysis of Additively Manufactured Stainless Steel 316L Specimens	Jeffrey king
P08.1	8/4/2021	2:15 PM	3:15 PM	721 - Advanced Characterization of Additively Manufactured 316L Stainless Steel for Nuclear Applications	Lingfeng He
P08.1	8/4/2021	2:15 PM	3:15 PM	721.1 - Non-Equilibrium Solid-State Transformations in Additively Manufactured Ternary Al-Ce-Mn	Kevin Sisco
P08.2	8/5/2021	10:00 AM	11:00 AM	887 - Microstructural characterization of 316L stainless steel fabricated by selective laser melting by advanced electron microscopy techniques	Sarka Mikmekova
P08.2	8/5/2021	10:00 AM	11:00 AM	888 - HR-EBSD based Characterization of Dislocations in Additive Manufactured 316L Stainless Steel	Josh Kacher
P08.2	8/5/2021	10:00 AM	11:00 AM	889 - Characterizing the influence of parent grain structures on the physical properties of additively manufactured Ti-64 alloys using EBSD	Pat Trimby
P08.2	8/5/2021	10:00 AM	11:00 AM	890 - Understanding the effect of cellular structures on mechanical behavior of additively manufactured 316L stainless steel	Xin Wang
P08.2	8/5/2021	10:00 AM	11:00 AM	891 - The effect of beam scan strategies on the microstructure and mechanical properties of additive manufacturing Ti-6Al-4V builds	Meiyue Shao
P08.2	8/5/2021	10:00 AM	11:00 AM	892 - Segregation and Precipitation at Cell Boundaries in Rapidly Solidified Austenitic Stainless Steels.	Zachary Hasenbusch
P08.3	8/5/2021	12:45 PM	1:45 PM	967 - Automated inclusion and porosity analysis of metal additive manufacturing parts	Petrus Pistorius
P08.3	8/5/2021	12:45 PM	1:45 PM	968 - Three-dimensional Characterization of Selective Laser Melted Graphene Oxide-Reinforced Ti-48Al-2Cr-2Nb Alloy using FIB-SEM Tomography	Dian Li
P08.3	8/5/2021	12:45 PM	1:45 PM	969 - High Resolution X-Ray CT Reconstruction of Additively Manufactured Metal Parts using Generative Adversarial Network-based Domain Adaptation in AI-CT	Amir Ziabari
P08.3	8/5/2021	12:45 PM	1:45 PM	970 - In situ dynamic X-ray micro-CT for additive manufactured parts	Jan Dewanckele
P08.3	8/5/2021	12:45 PM	1:45 PM	971 - Modeling and characterization of binder jet 3D printed NiMnGa components using X-ray microscopy	Constantin V. Solomon

P08.4	8/5/2021	2:45 PM	3:45 PM	1019 - Shear-Deformation-Induced Modification of Defect Structures and Hierarchical Microstructures in Miscible and Immiscible Alloys	Bharat Gwalani
P08.4	8/5/2021	2:45 PM	3:45 PM	1020 - Utilizing a Dynamic Segmentation Convolutional Neural Network for Microstructure Analysis of Additively Manufactured Superalloy 718	Stephen Taller
P08.4	8/5/2021	2:45 PM	3:45 PM	1021 - Direct Synthesis of ZIF-8 on Transmission Electron Microscopy Grids Allows Structure Analysis and 3D Reconstruction	Milena Hugenschmidt
P08.4	8/5/2021	2:45 PM	3:45 PM	1022 - Nanostructure Evolution in AA7075 Alloy Produced by Solid State Additive Manufacturing – Additive Friction Stir - Deposition	Rekha M Y
P08.4	8/5/2021	2:45 PM	3:45 PM	1023 - Correlative Microscopy and Spectroscopy for Characterization of Laser-Based Additive Manufactured Materials	Mason Freund
P09.1	8/2/2021	12:30 PM	1:30 PM	56 - Exploiting Microreactors for Correlative Studies of Working Catalysts With Electrons And X-Rays	Eric Stach
P09.1	8/2/2021	12:30 PM	1:30 PM	57 - 3D Morphology of Magnetic Bubbles in Layered Ferromagnetic Materials	Rich Moraski
P09.1	8/2/2021	12:30 PM	1:30 PM	58 - Compositional Homogenization of Electrodeposited High Entropy Alloys Coatings for Enhanced Corrosion Resistance	AHMED ALIYU
P09.1	8/2/2021	12:30 PM	1:30 PM	59 - Microstructure Evolution of Low Carbon Steel via Flash Processing	Kinga Unocic
P09.1	8/2/2021	12:30 PM	1:30 PM	60 - Texture Evolution and corrosion behaviour of Sn-Cr electrodeposited coatings.	Roohan Lala
P09.2	8/2/2021	2:30 PM	3:30 PM	125 - Study of Functional Materials by Correlative Electron and Synchrotron X-ray Microscopy	Yuzi Liu
P09.2	8/2/2021	2:30 PM	3:30 PM	126 - Correlation between Surface Morphology and Corrosion Behaviour of Ni-P-Graphene and Ni-P-Carbon Nanotube Composite Coatings.	Atul Meshram
P09.2	8/2/2021	2:30 PM	3:30 PM	127 - Use of LOM and EBSD to Identify Bainite in Complex Phase Steel	Renan Lima
P09.2	8/2/2021	2:30 PM	3:30 PM	128 - Microstructural Alteration in Conventional Metallic Coatings by Carbonaceous Additives (Graphene Oxide and Carbon Nanotubes)	Chandan Srivastava
P09.2	8/2/2021	2:30 PM	3:30 PM	129 - Multi-scale and multimodal x-ray microscopy and applications	Xianghui Xiao
P09.3	8/3/2021	10:45 AM	11:45 AM	300 - Correlative Tomography - Bridging the length-scales through correlative X-ray and Electron Imaging	Philip Withers
P09.3	8/3/2021	10:45 AM	11:45 AM	301 - Comprehensive, multidimensional and correlative particle characterization of a saxolite and talcum compound to support the understanding of complex separation processes	Silvan Englisch
P09.3	8/3/2021	10:45 AM	11:45 AM	302 - A scale-bridging study of the influence of TCP phases on the mechanical properties of an additive manufactured Ni-base superalloy combining microcompression testing, X-ray nanotomography and TEM	Michael Sommerschuh
P09.3	8/3/2021	10:45 AM	11:45 AM	303 - Correlative Zernike phase contrast X-ray nanotomography to determine the distribution and orientation of graphite particles in a carbon fiber reinforced epoxy resin for improved thermal conductivity	Simon Carl
P09.3	8/3/2021	10:45 AM	11:45 AM	304 - In-situ Gold-Silicon Eutectic Mixture Formation	Daniel Veghte
P09.4	8/3/2021	12:30 PM	1:30 PM	399 - The interplay among compositional heterogeneity, lattice defects, micromorphology, and redox stratification in lithium-ion batteries	Yijin Liu

P09.4	8/3/2021	12:30 PM	1:30 PM	400 - Extending lab-based X-ray nanotomography of low Z and porous materials to larger sample volumes without compromising resolution	Silvan Englisch
P09.4	8/3/2021	12:30 PM	1:30 PM	401 - Q.U.A.I.N.T.P.E.A.X. QUantifying Algorithmically INtrinsic Properties of Electronic Assemblies via X-ray CT	John True
P09.4	8/3/2021	12:30 PM	1:30 PM	402 - Recovering Chemistry at Atomic Resolution using Multi-Modal Spectroscopy	Jonathan Schwartz
P09.4	8/3/2021	12:30 PM	1:30 PM	403 - High-resolution X-ray source with advanced e-beam technology: pushing the resolution limitation for lab-scale NanoCT	Anasuya Adibhatla
P10.1	8/2/2021	12:30 PM	1:30 PM	61 - Reproducible in-situ electrical biasing of resistive memory materials using piezo-controlled electrical contacts and chip based systems.	David Cooper
P10.1	8/2/2021	12:30 PM	1:30 PM	62 - In Situ STEM Observations of Elemental Segregation in Phase Change Material GST Under Electrical and Thermal Stress	Ho Leung Chan
P10.1	8/2/2021	12:30 PM	1:30 PM	63 - Atomic-resolution Probing of Anion Migration in Perovskites with In-situ (S)TEM	Yu Deng
P10.1	8/2/2021	12:30 PM	1:30 PM	64 - Opportunities of in situ TEM for measuring voltage-driven microstructural changes in memristive devices	Frances Ross
P10.2	8/2/2021	2:30 PM	3:30 PM	130 - In-situ observation of the in-plane field induced nucleation of skyrmion using Lorentz-TEM	Binbin wang
P10.2	8/2/2021	2:30 PM	3:30 PM	131 - Current-driven Dynamics of Magnetic Skyrmion Bunches	Fehmi Yasin
P10.2	8/2/2021	2:30 PM	3:30 PM	132 - Cryogenic Atomic Resolution and 4D STEM Imaging for Energy and Quantum Materials	Miaofang Chi
P10.2	8/2/2021	2:30 PM	3:30 PM	133 - Operando and in situ in a TEM imaging in a cryogenic temperature range	Martial Duchamp
P10.3	8/3/2021	10:45 AM	11:45 AM	305 - Recovery of long-range order in two-dimensional charge density waves at high temperatures	Suk Hyun Sung
P10.3	8/3/2021	10:45 AM	11:45 AM	306 - Direct observation of reversible oxygen migration and phase transitions in ferroelectric Hf _{0.5} Zr _{0.5} O ₂ thin-film devices	Pavan Nukala
P10.3	8/3/2021	10:45 AM	11:45 AM	307 - Tracking quantum phase transitions with continuously variable temperature cryo-STEM	Lena Kourkoutis
P10.3	8/3/2021	10:45 AM	11:45 AM	308 - Intelligent Microscopy: A Path Toward Tailored Materials at the Atomic Scale	Mitra Taheri
P10.4	8/3/2021	12:30 PM	1:30 PM	404 - In-situ TEM irradiation induced amorphization of Ge ₂ Sb ₂ Te ₅	Khalid Hattar
P10.4	8/3/2021	12:30 PM	1:30 PM	405 - Temperature-Dependent Structural Evolution of Pt-Ni Nanoparticles Observed by In Situ TEM	Xiner Lu
P10.4	8/3/2021	12:30 PM	1:30 PM	406 - Birth of a grain boundary: In situ TEM Observation of the Microstructure Evolution in HfO ₂ Based Memristors	Robert Eilhardt
P10.4	8/3/2021	12:30 PM	1:30 PM	407 - Investigation of Phase Transformations in Ge ₄ Sb ₄ Te ₅ film using Transmission Electron Microscopy	Manish Singh
P10.4	8/3/2021	12:30 PM	1:30 PM	408 - Formation and surface melting of nanoparticle superlattices in a solution	Qian Chen
P10.5	8/3/2021	3:00 PM	4:00 PM	488 - Mapping metal/insulator nanodomains switching in V ₂ O ₃ by variable-temperature electron spectromicroscopy investigations	Ibrahim Koita
P10.5	8/3/2021	3:00 PM	4:00 PM	489 - Understanding the structural evolution and stability of a Ge-Sn alloy at the nanoscale through in situ TEM heating	Alexey Minenkov

P10.5	8/3/2021	3:00 PM	4:00 PM	490 - Tensile detwinning in bi-twinned metallic nanowires	Guangming Cheng
P10.5	8/3/2021	3:00 PM	4:00 PM	491 - In-situ TEM Cryoindentation of Nanocrystalline Copper	Eric Lang
P10.5	8/3/2021	3:00 PM	4:00 PM	492 - In situ observations and measurements of plastic deformation, phase transformations and fracture with 4D-STEM	Andrew Minor
P10.6	8/4/2021	11:30 AM	12:30 PM	654 - In-situ Observation of Ordering Transformations in θ -Al ₂ O ₃	Libor Kovarik
P10.6	8/4/2021	11:30 AM	12:30 PM	655 - In-situ Atomic-Scale Visualization of Atomic-Step Induced NiO growth during the Oxidation of Ni	Xiaobo Chen
P10.6	8/4/2021	11:30 AM	12:30 PM	656 - Interaction of dislocations with twinning boundary in bi-twinned metallic nanowires	Guangming Cheng
P10.6	8/4/2021	11:30 AM	12:30 PM	657 - Probing the Dynamics of Phase Transformation in Nanostructures by STEM Imaging and Spectroscopy	Xiaoqing Pan
P10.6	8/4/2021	11:30 AM	12:30 PM	658 - In-situ TEM investigations on temperature-induced structural transition from monoclinic-to- cubic phase of ball-milled yttria	Vaishnavi Krupa B R
P10.7	8/4/2021	2:15 PM	3:15 PM	722 - In-situ electron microscopy study of non-volatile resistive switching in Mott insulator VO ₂	Shaobo Cheng
P10.7	8/4/2021	2:15 PM	3:15 PM	723 - Investigations of magneto-elastic coupling in a multiferroic ferrite by in-situ precession diffraction	Shiqing Deng
P10.7	8/4/2021	2:15 PM	3:15 PM	724 - Direct observation of the perpendicular shape anisotropy and thermal stability of STT-MRAM nano-pillars examined by off-axis electron holography	Trevor Almeida
P10.7	8/4/2021	2:15 PM	3:15 PM	725 - In situ transmission electron microscopy of magnetic transitions	Andras Kovacs
P10.7	8/4/2021	2:15 PM	3:15 PM	726 - Lorentz Transmission Electron Microscopy Imaging of Magnetic Textures in MnBi	Núria Bagués
P10.8	8/5/2021	10:00 AM	11:00 AM	893 - Live Mapping of Crystalline Regions During in-situ Heating (TEM and STEM)	Benjamin Miller
P10.8	8/5/2021	10:00 AM	11:00 AM	894 - Early stages of phase decomposition in NiAu alloy thin films studied by in situ TEM using ultrafast quenching methods	Johanna Schubert
P10.8	8/5/2021	10:00 AM	11:00 AM	895 - In situ chip-based heating studies of metal-induced layer exchange and Si crystallization using STEM, LEND and SE imaging in SEM	Peter Denninger
P10.8	8/5/2021	10:00 AM	11:00 AM	896 - Electron Beam as a Probe and Stimulus: Challenges and Opportunities	Sadegh Yazdi
P10.8	8/5/2021	10:00 AM	11:00 AM	897 - Few-second EELS mapping with atomic-resolution	Berit Goodge
P11.1	8/5/2021	10:00 AM	11:00 AM	898 - Expanding the capabilities of the RF stroboscopic TEM	June Lau
P11.1	8/5/2021	10:00 AM	11:00 AM	899 - Development of High-Speed Scan System for Atomic Resolution STEM	Yu Jimbo
P11.1	8/5/2021	10:00 AM	11:00 AM	900 - High-Resolution Transmission Electron Microscopy with Bright Microsecond Electron Pulses	Gabriele Bongiovanni
P11.1	8/5/2021	10:00 AM	11:00 AM	901 - Photoinduced Topological Insulator to Dirac Semimetal Transition in ZrTe ₅	Yimei Zhu
P11.2	8/5/2021	12:45 PM	1:45 PM	972 - Transient lensing from an electron gas imaged by ultrafast electron microscopy	Renske van der Veen
P11.2	8/5/2021	12:45 PM	1:45 PM	973 - Photo-induced ultrafast phase transition in twisted bilayer graphene	Jianguo Wen
P11.2	8/5/2021	12:45 PM	1:45 PM	974 - Ultrafast nanoimaging of the order parameter in a structural phase transition	Thomas Danz
P11.2	8/5/2021	12:45 PM	1:45 PM	975 - Studying rapid solidification microstructure evolution in hypoeutectic ternary Al(Cu-Ag) alloys by fast in-situ and post-mortem TEM experiments	Yuzhe Liu
P11.2	8/5/2021	12:45 PM	1:45 PM	976 - Photocathode Investigation for Ultrafast Electron Microscopy	Thomas Gage

P11.3	8/5/2021	2:45 PM	3:45 PM	1024 - Extreme Light-Matter Interactions in the Ultrafast Transmission Electron Microscope	Ido Kaminer
P11.3	8/5/2021	2:45 PM	3:45 PM	1025 - Catching them in Action: Ultrafast Transmission Electron Microscopy	Volkan Ortolan
P11.3	8/5/2021	2:45 PM	3:45 PM	1026 - Capturing Laser Induced Dynamics of Reactive Materials via Ultrafast Transmission Electron Microscopy	Tugba Isik
P11.3	8/5/2021	2:45 PM	3:45 PM	1027 - Imaging of localized surface plasmonic field at nanoscale by UEM	Haihua Liu
P11.3	8/5/2021	2:45 PM	3:45 PM	1028 - High-Q photonic chip-based temporal phase plates for electron microscopy	Armin Feist
P12.1	8/2/2021	2:30 PM	3:30 PM	134 - In Situ and Operando Imaging of the Evolution of Battery Materials and Interfaces	Matthew McDowell
P12.1	8/2/2021	2:30 PM	3:30 PM	135 - Correlative relationship between nanomorphology, crystallinity, texture and device efficiency of organic BHJ solar cells studied by energy-filtered TEM	Christina Harreiss
P12.1	8/2/2021	2:30 PM	3:30 PM	136 - Processing of Electroactive Ceramics in the Transmission Electron Microscope	Jenna Wardini
P12.1	8/2/2021	2:30 PM	3:30 PM	137 - 4D-STEM Determination of Atomic Structure of Amorphous Materials for Renewable Energy Applications	Mehrdad Abbasi Gharacheh
P12.1	8/2/2021	2:30 PM	3:30 PM	138 - Examining Partial Crystallization in the Co(78-x)Fe ₂ MnxB ₁₄ Si ₂ Nb ₄ Magnetic Amorphous Nanocomposite Alloy Series	Alicia Koenig
P12.2	8/3/2021	10:45 AM	11:45 AM	309 - Designing Atomic Edge Structures in 2D Transition Metal Dichalcogenides for Improved Catalytic Activity	Raymond Unocic
P12.2	8/3/2021	10:45 AM	11:45 AM	310 - The atomic-scale microstructure of metal halide perovskite elucidated via low-dose electron microscopy	Mathias Rothmann
P12.2	8/3/2021	10:45 AM	11:45 AM	311 - Quantifying the local structure of incommensurately modulated tetragonal tungsten bronze from STEM images	Stephen Funni
P12.2	8/3/2021	10:45 AM	11:45 AM	312 - Elucidating fuel cell catalyst degradation mechanisms by identical-location transmission electron microscopy	Haoran Yu
P12.2	8/3/2021	10:45 AM	11:45 AM	313 - Multiple ADF-STEM Towards the Optimization of Electron Tomography Reconstructions of Pt/C fuel cell catalyst nanostructures	Alessandra da Silva
P12.3	8/3/2021	12:30 PM	1:30 PM	409 - CANCELLED - Cryogenic imaging and spectroscopic study of electrochemically formed solid interphases - from nano to meso scale.	
P12.3	8/3/2021	12:30 PM	1:30 PM	410 - Cryo-TEM study of solid electrolyte interphases in Li-ion batteries	Meng Gu
P12.3	8/3/2021	12:30 PM	1:30 PM	411 - Sweeping Potential Regulated Structural and Chemical Evolution of Solid-Electrolyte Interphase on Cu and Li as Revealed by Cryogenic Transmission Electron Microscopy	Yaobin Xu
P12.3	8/3/2021	12:30 PM	1:30 PM	412 - In situ TEM study of Si-based anode materials	Weiqun Li
P12.3	8/3/2021	12:30 PM	1:30 PM	413 - Atomic-scale mechanisms for fluorination-enhanced cycling stability of cation-disordered rocksalt cathodes	Linze Li
P12.4	8/3/2021	3:00 PM	4:00 PM	493 - Cryogenic STEM for probing soft materials and interfaces in energy devices	Lena Kourkoutis
P12.4	8/3/2021	3:00 PM	4:00 PM	494 - Atomic-scale Insights of Cation Diffusion into Multivalent Battery Cathodes	Prakash Parajuli
P12.4	8/3/2021	3:00 PM	4:00 PM	495 - Investigation of structural defects and beam induced transitions in MgV ₂ O ₄ nanocrystals using atomic resolved scanning transmission electron microscopy.	Francisco Lagunas
P12.4	8/3/2021	3:00 PM	4:00 PM	496 - Electrolyte Comparison for Li-Metal Anodes with Cryo-Laser PFIB	Katherine Jungjohann

P12.4	8/3/2021	3:00 PM	4:00 PM	497 - Probing Microstructure-Dependent Ionic Conductivity and Stability of Garnet Solid Electrolytes through In Situ TEM with Operando Impedance Spectroscopy	Hongkui Zheng
P12.5	8/4/2021	11:30 AM	12:30 PM	659 - In-Situ Environmental TEM Study of Solid-Gas Interfacial Process in Energy Materials	Chongmin Wang
P12.5	8/4/2021	11:30 AM	12:30 PM	660 - In Situ TEM Investigation of the Spontaneous Hollowing of Alloy Anode Nanocrystals	Matthew Boebinger
P12.5	8/4/2021	11:30 AM	12:30 PM	661 - Multi-Length Scale Characterization of Graphite Anodes from Fast-Charge Lithium-Ion Cells	Saran Pidaparthi
P12.5	8/4/2021	11:30 AM	12:30 PM	662 - CANCELLED - Understanding Degradation Processes in MXene Anodes by In-situ Liquid Cell STEM	
P12.5	8/4/2021	11:30 AM	12:30 PM	663 - Structural Investigation of NCM-Cathode-LLZO-Electrolyte Composites as Promising Candidates for All-Solid-State Batteries Using (Cryo) STEM and PED	Thomas Demuth
P12.6	8/4/2021	2:15 PM	3:15 PM	727 - In-situ Imaging of Electro-Chemo-Mechanical Degradation of High-Ni Content Cathode Materials	Huolin Xin
P12.6	8/4/2021	2:15 PM	3:15 PM	728 - Surface Degradation Analysis of Commercial Nickel-rich Oxide Cathode Materials by Multiple Electron Microscopy Technologies	Jiangtao Zhu
P12.6	8/4/2021	2:15 PM	3:15 PM	729 - Asymmetric Discharge-Charge Reactions in Conversion-Type Electrodes for Lithium-Ion Batteries	Sooyeon Hwang
P12.6	8/4/2021	2:15 PM	3:15 PM	730 - Resolve cathode electrolyte interphase in lithium batteries with cryo-EM	Zewen Zhang
P12.7	8/5/2021	10:00 AM	11:00 AM	902 - In Situ TEM Nano Electrochemistry	Jianyu Huang
P12.7	8/5/2021	10:00 AM	11:00 AM	903 - Direct Imaging of Oxygen Sub-lattice Deformation in Li-rich Cathode Material Using Electron Ptychography	Weixin Song
P12.7	8/5/2021	10:00 AM	11:00 AM	904 - Phase Evolution Analysis During Real-Time Solid-State Chemical Lithiation of Crystalline Thin Window Silicon Membranes Using Low-Loss STEM-EELS Imaging	Vladimir Oleshko
P12.7	8/5/2021	10:00 AM	11:00 AM	905 - Ex-situ Li plating detection on graphite anodes in extremely fast-charged lithium-ion batteries using simultaneous neutron and X-ray tomography	Maha Yusuf
P12.7	8/5/2021	10:00 AM	11:00 AM	906 - In Situ TEM Investigation of Lithium Intercalation in Ti3C2TX MXenes for Energy Storage Applications	Sudhajit Misra
P12.8	8/5/2021	12:45 PM	1:45 PM	977 - From In Situ Conversion to Chemical Reaction Kinetics: Development of Truly Operando TEM and its Application to CeO2-Supported Pt Catalysts	Peter Crozier
P12.8	8/5/2021	12:45 PM	1:45 PM	978 - Quantitative analysis of 3D structures in metal-oxide composites	Yu Wen
P12.8	8/5/2021	12:45 PM	1:45 PM	979 - Atomic-scale Imaging of PGM-free Catalyst Active Sites by 30 keV 4D-STEM	Michael Zachman
P12.8	8/5/2021	12:45 PM	1:45 PM	980 - In Situ TEM Studies on the Nucleation and Growth of Multicomponent Alloy Nanoparticles on 2D Materials	Mahmoud Tamadoni Saray
P12.8	8/5/2021	12:45 PM	1:45 PM	981 - Studying Charge Transport and Light Induced Structural Alterations in Ni/NiO Core-Shell Co-Catalysts on SrTiO3 for Solar Hydrogen Evolution	Piyush Haluai
P12.9	8/5/2021	2:45 PM	3:45 PM	1029 - Material Contrast Information at the limit: Imaging of energy related materials with Backscattered Electrons obtained with Field Emission and the DELTA SEM	Ute Golla-Schindler
P12.9	8/5/2021	2:45 PM	3:45 PM	1030 - Development of high-temperature electrochemical TEM and its application on solid oxide electrolysis cells	Søren Simonsen

P12.9	8/5/2021	2:45 PM	3:45 PM	1031 - Electron Microscopy Characterization of Sargassum Spp. from the Mexican Caribbean for Application as a Bioconstruction Material	Rogelio Anastacio-Paulino
P12.9	8/5/2021	2:45 PM	3:45 PM	1032 - Universality and Scaling in Relations Between the Plasmon Energy and Solid-State Parameters: Viewing Nanoscale Properties of Battery Materials	Vladimir Oleshko
P12.9	8/5/2021	2:45 PM	3:45 PM	1033 - STEM Analysis of Cycled Model Li-ion Battery Cathode Grown by MBE.	Bilash KC
P12.9	8/5/2021	2:45 PM	3:45 PM	1034 - Low Dose Structural Analysis of Fragile Materials by Three-Dimensional Electron Diffraction	Zhehao Huang
P13.1	8/2/2021	12:30 PM	1:30 PM	65 - Adaptive Peak Fitting for Isotope Analysis via Atom Probe Mass Spectrometry	Frederick Meisenkothen
P13.1	8/2/2021	12:30 PM	1:30 PM	66 - A scheme to correct for inaccuracies in the compositional analysis of SixGe1-x by Atom Probe Tomography	Jeroen Scheerder
P13.1	8/2/2021	12:30 PM	1:30 PM	67 - Nanoscale tracking of oxygen diffusion pathways in oxide ion conductors	David Diercks
P13.1	8/2/2021	12:30 PM	1:30 PM	68 - Inter-Experiment Machine Learning on APT experiments: New Insights from Meta-Analysis	Martin Meier
P13.1	8/2/2021	12:30 PM	1:30 PM	69 - 4-D STEM Analyses of Cylindrical Specimens for Atom Probe Tomography	Brian Gorman
P13.2	8/2/2021	2:30 PM	3:30 PM	139 - Enhanced Atom Probe Imaging using Generalised Field Evaporation Models	Charles Fletcher
P13.2	8/2/2021	2:30 PM	3:30 PM	140 - A Machine Learning Approach to Cluster Characterization for Atom Probe Tomography	Roland Bennett
P13.2	8/2/2021	2:30 PM	3:30 PM	141 - On the Voltage and Bowl Correction of Trigger-Uncorrelated Multihit Events	Benjamin Caplins
P13.2	8/2/2021	2:30 PM	3:30 PM	142 - Isotopic Analysis of Irradiated Ceramic Fuel for Burnup and Microchemical Assessment Using Atom Probe Tomography.	Mukesh Bachhav
P13.2	8/2/2021	2:30 PM	3:30 PM	143 - Evaporation Dynamics of Boron Dopants in Silicon	Jonathan Op de Beek
P13.3	8/3/2021	10:45 AM	11:45 AM	314 - Developing cryogenic and vacuum transfer capabilities at the Australian Centre for Microscopy and Microanalysis	Ingrid McCarroll
P13.3	8/3/2021	10:45 AM	11:45 AM	315 - Nanoscale Chemical Imaging in Zeolite Catalysts by Atom Probe Tomography	Jonathan Poplawsky
P13.3	8/3/2021	10:45 AM	11:45 AM	316 - In Situ Atom Probe Tomography Study of The Influence of Deformation on Early Stages of Oxidation of Fe18Cr10Ni Alloy	ARUN Devaraj
P13.3	8/3/2021	10:45 AM	11:45 AM	317 - The effect of laser energy on the measurement of oxide stoichiometry of Co2FeO4 nanoparticles by atom probe tomography	Tong Li
P13.4	8/3/2021	12:30 PM	1:30 PM	414 - A Tomographic Atom Probe laser assisted by a flexible optical system	Jonathan Houard
P13.4	8/3/2021	12:30 PM	1:30 PM	415 - Evaporation-Field Differences with Deep-UV Atom Probe Tomography	Ty Prosa
P13.4	8/3/2021	12:30 PM	1:30 PM	416 - An XHV atom probe with ultra-low hydrogen background	Peter Felfer
P13.4	8/3/2021	12:30 PM	1:30 PM	417 - 3D Nanoscale Analysis of Protein-Mineral Nanoparticle Interfaces Using Atom Probe Tomography for Understanding Amelogenesis	Sandra Taylor
P13.4	8/3/2021	12:30 PM	1:30 PM	418 - Graphene encapsulation enables vitreous ice sample for APT and near-atomic reconstruction of nanoparticle-liquid interface	Jing Fu
P13.5	8/3/2021	3:00 PM	4:00 PM	498 - Atom Probe Tomography of Small-Molecule Organic Materials	Jeremy Zimmerman
P13.5	8/3/2021	3:00 PM	4:00 PM	499 - Nanoporous metal tips as frameworks for analysing frozen liquids with atom probe tomography	Levi Tegg

P13.5	8/3/2021	3:00 PM	4:00 PM	500 - Deuterium charged grain boundaries in iron investigated at room and cryo temperatures with APT	Martina Heller
P13.5	8/3/2021	3:00 PM	4:00 PM	501 - Development of the Operando Atom Probe: The Influence of the electric field on Fe oxidation	Sten Lambeets
P13.5	8/3/2021	3:00 PM	4:00 PM	502 - Prospects of mapping macromolecular structure and ionic gradients in hydrated biological specimens using Atom Probe Tomography	Daniel Perea