FiB SEM

Program

April 8 - 9, 2026

Kossiakoff Center
Johns Hopkins Applied Physics Laboratory
11100 Johns Hopkins Road
Laurel, MD

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KLA INSTRUMENTS
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CMMS Chesapeake Microscopy & Microanalysis Society
CCEM Canadian Centre for Electron Microscopy

REGISTER TODAY

https://ccem.mcmaster.ca/events/18th-annual-fib-sem-meeting/

Visit https://fibsem.net for more information.

FULL MEETING OVERVIEW

Wednesday, April 8, 2026

8:30 AM	Check-in and Breakfast
9:30 AM	Welcome and Housekeeping
9:40 AM	Plenary
10:20 AM	Material Sciences & Semiconductors
11:00 AM	Break
11:30 AM	Material Sciences & Semiconductors
12:30 PM	Lunch
1:30 PM	Material Sciences, Semiconductors & Poster Session
3:00 PM	Poster Session & Break
3:30 PM	Biology
4:35 PM	Happy Hour @ K-Center

Thursday, April 9, 2026

8:30 AM	Check-in and Breakfast
9:30 AM	Welcome and Housekeeping
9:40 AM	Material Sciences & Semiconductors
10:50 AM	Break
11:20 AM	Material Sciences & Instrumentation
12:20 PM	Lunch
1:30 PM	Automation, AI & Instrumentation
2:50 PM	Break
3:20 PM	Cryo
4:20 PM	Wrap-up

Wednesday, April 8, 2026

Time (UTC-4)	Presenter	Title
8:30 AM		Check-in and Breakfast
9:30 AM		Welcome and Housekeeping
9:40 AM	Sina Shahbazmohamadi, Uconn/Tescan	(**Plenary**) High throughput Sample Preparation in Microscopy 4.0: Intelligent, Automated and Connected Solutions (Abstract)
10:20 AM	José-Manuel Tapia-Cáceres, ASU	A Co-Mounted Lamellae Mounting Strategy for Integrated SPM and STEM Correlative Metrology in Gate-All-Around Devices (Abstract)
10:40 AM	Jemima Gonsalves, IBM	Integrating conventional and contemporary sample preparation methods for the analysis of deeply buried regions of interest in 3D stacked microelectronic devices (Abstract)
11:00 AM		Break
11:30 AM	Paul Jacob, RIT	In-situ Observation of Channel Formation in MOSFETs using Electron Beam Induced Current Technique (Abstract)
11:50 PM	Will Osborn, NIST	(**Invited**) Advancing Metrology for Leading-Edge Node Semiconductor Devices with Atypical FIB Workflows (Abstract)
12:20 PM		Group Photo
12:30 PM		Lunch
1:30 PM	Andy Herzing, NIST	Three-dimensional Imaging of Multiple Gate All Around Transistors via Plan-view Electron Tomography
1:50 PM	Patrick Callahan, NRL	EBSD at Lower Accelerating Voltages for Phase Detection in Martensitic Steels (Abstract)
2:10 PM	Poster Presenters	Lightning Talks
2:20 PM		Poster Session
3:00 PM		Poster Session Continued with Coffee

Wednesday, April 8, 2026

Continued

Time	Presenter	Title
3:30 PM	Kedar Narayan, NIH	Towards (truly) quantitative volume EM (Abstract)
3:50 PM	Matthew Maier, Pitt	Preparation of Archival Human Brain Tissue for Nanoscale Volumetric FIB-SEM (Abstract)
4:10 PM	Jenesis Kozel, Pitt	3D Characterization of Myelin Ultrastructure in Postmortem Human Tissue via Focused Ion Beam Scanning Electron Microscopy (FIBSEM) (Abstract)
4:30 PM		Wrap-up
4:35 PM		Happy Hour @ K-Center

Thursday, April 9, 2026

Time	Presenter	Title
8:30 AM	Check-in and Breakfast	
9:30 AM	Welcome and Housekeeping	
9:40 AM	Henri Lezec, NIST	(**Invited**) Plasma-source FIB fabrication of metasurfaces on trapped-ion quantum computer chips
10:10 AM	Ewelina Gacka, HZDR	(**On-line**) Advanced Focused Ion Beam System for Quantum Technology Applications (Abstract)
10:30 AM	Alex Johnson, NenoVision	Site-Selective Xe Plasma FIB Device Deprocessing with In-Situ Conductive AFM Characterization of NAND Memory Structures (Abstract)
10:50 AM	Break	
11:20 AM	Sharang Sharang, Tescan	Enhanced S/TEM Specimen Preparation FIB and EXLO (Abstract)
11:40 AM	Peter Gnauck, Raith	High-Resolution Magnetic-Sector SIMS for Advanced Semiconductor and Materials Science Applications (Abstract)
12:00 PM	Satyam Ladva, Quantum Design	AFSEM
12:20 PM	Lunch	
1:30 PM	Rick Passey, TFS	The Path to the Autonomous Lab: Scaling FIB-SEM Workflows from Scripting to Full Autonomy (Abstract)
1:50 PM	Andras Vladar, NIST	AI-driven Scanning Electron Microscopy
2:10 PM	Lorenz Lechner, Kleindiek	Automating Nanoprobing and Lift-Out Workflows Using Robust Deep Learning Models (Abstract)
2:30 PM	Cheryl Hartfield, Waviks	Adding Light to Your Microscope: A Review of Applications Enabled by Optical Delivery in FIB-SEM (Abstract)
2:50 PM	Break	

Thursday, April 9, 2026

Continued

Time	Presenter	Title
3:20 PM	Yulia Trenikhina, Zeiss	Cryogenic FIB-SEM Preparation of Lithium Metal for Solid-State Battery Research (Abstract)
3:40 PM	Seth Villarreal, Leica	The Waffle Method (Abstract)
4:00 PM	Geoff Perumal, TFS	Innovative Solutions for Higher Efficiency and Throughput in Cryo-Electron Tomography (Abstract)
4:20 PM		Wrap-up

Posters

Session	Presenter	Title
Mat Sci	Nicholas Antoniou, KLA	Throughput Enhancement for High Resolution Sample Preparation Workflows (Abstract)
Mat Sci	Matt Nowell, Gatan	High-Confidence EBSD from Lower-Quality Patterns Enabled by Spherical Indexing (Abstract)
Mat Sci	James Tordiff, NRC-NANO	Ion Beam Lithography using the ScanoMi Open Source Scan Generator (Abstract)
Mat Sci	Sandip Basu, Zeiss	Seeing While Milling: Overcoming Low-kV FIB Endpointing Challenges in Advanced Semiconductor TEM Sample Preparation (Abstract)
Mat Sci	Oytun Tasgit, 3D-Micromac	Scaling FIB-SEM Sample Preparation Through Automated Laser Processing for Wafer-Level and System-Level Failure Analysis (Abstract)
Bio	Melissa R Mikolaj, NIH	Empanada, a napari plugin for automated segmentation of sub-cellular features imaged by volume electron microscopy (Abstract)
Bio	Shweta Bhushan	Sample Preparation and Scanning Electron Microscopy of Brain Organoids (Abstract)
Automation	Jamie Ford, UPenn	Modernizing Research Data Management in Multi-User Characterization Facilities: NexusLIMS v2.0 and Automated Data Harvesting with StreamWeave (Abstract)

Meeting Notes

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