

# FIB SEM Program

April 8 - 9, 2026

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

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# FULL MEETING OVERVIEW

## Wednesday, April 8, 2026

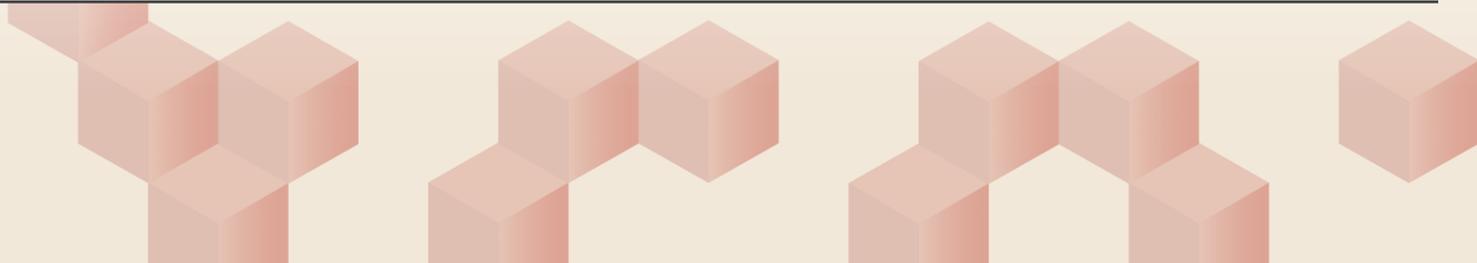
8:30 AM	Check-in and Breakfast
9:30 AM	Welcome and Housekeeping
9:40 AM	Plenary
10:20 AM	Material Sciences & Semiconductors
11:00 AM	Break
11:30 AM	Material Sciences & Semiconductors
12:30 PM	Lunch
1:30 PM	Material Sciences, Semiconductors & Poster Session
3:00 PM	Poster Session & Break
3:30 PM	Biology
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	<b>(Plenary)</b> High throughput Sample Preparation in Microscopy 4.0: Intelligent, Automated and Connected Solutions ( <a href="#">Abstract</a> )
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 ( <a href="#">Abstract</a> )
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 ( <a href="#">Abstract</a> )
11:00 AM		Break
11:30 AM	Paul Jacob, RIT	In-situ Observation of Channel Formation in MOSFETs using Electron Beam Induced Current Technique ( <a href="#">Abstract</a> )
11:50 PM	Will Osborn, NIST	<b>(Invited)</b> Advancing Metrology for Leading-Edge Node Semiconductor Devices with Atypical FIB Workflows ( <a href="#">Abstract</a> )
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 ( <a href="#">Abstract</a> )
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 ( <a href="#">Abstract</a> )
3:50 PM	Matthew Maier, Pitt	Preparation of Archival Human Brain Tissue for Nanoscale Volumetric FIB-SEM ( <a href="#">Abstract</a> )
4:10 PM	Jenesis Kozel, Pitt	3D Characterization of Myelin Ultrastructure in Postmortem Human Tissue via Focused Ion Beam Scanning Electron Microscopy (FIBSEM) ( <a href="#">Abstract</a> )
4:30 PM	Wrap-up	
4:35 PM	Happy Hour @ K-Center	



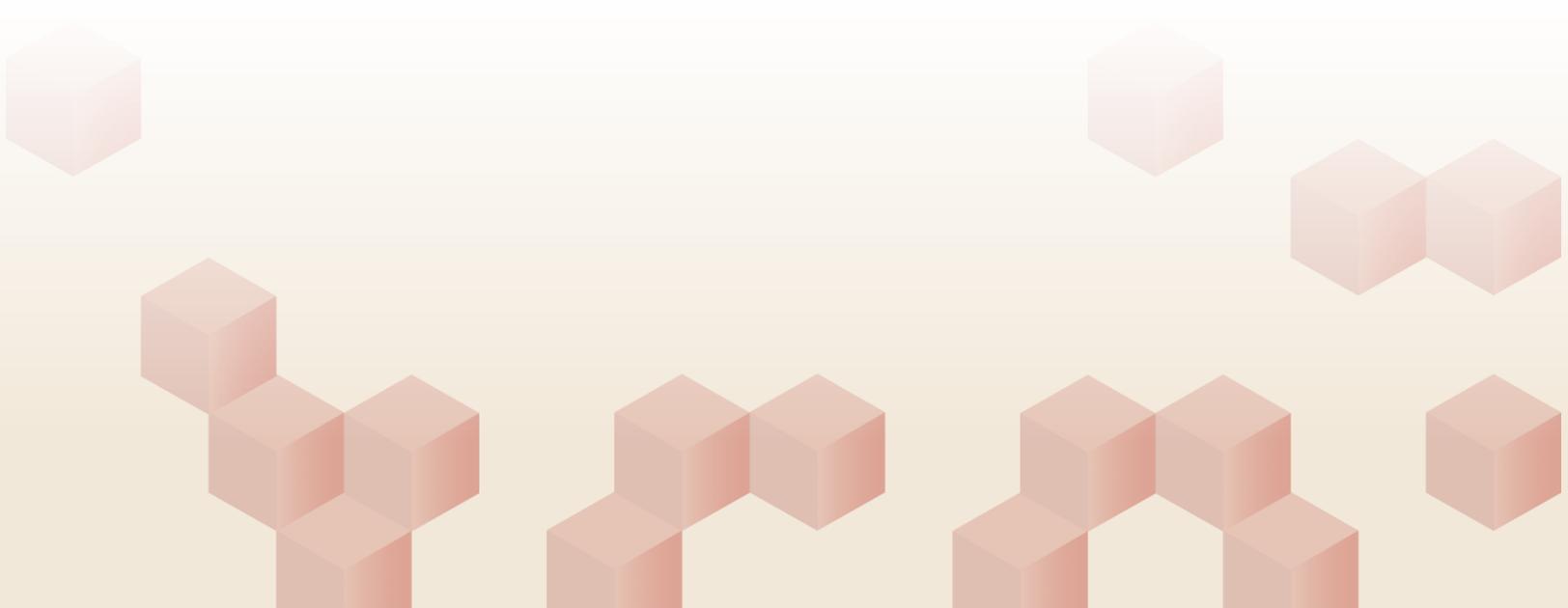
# Thursday, April 9, 2026

Time	Presenter	Title
8:30 AM	Check-in and Breakfast	
9:30 AM	Welcome and Housekeeping	
9:40 AM	Henri Lezec, NIST	<b>(Invited)</b> Plasma-source FIB fabrication of metasurfaces on trapped-ion quantum computer chips
10:10 AM	Ewelina Gacka, HZDR	<b>(On-line)</b> Advanced Focused Ion Beam System for Quantum Technology Applications ( <a href="#">Abstract</a> )
10:30 AM	Alex Johnson, NenoVision	Site-Selective Xe Plasma FIB Device Deprocessing with In-Situ Conductive AFM Characterization of NAND Memory Structures ( <a href="#">Abstract</a> )
10:50 AM	Break	
11:20 AM	Sharang Sharang, Tescan	Enhanced S/TEM Specimen Preparation FIB and EXLO ( <a href="#">Abstract</a> )
11:40 AM	Peter Gnauck, Raith	High-Resolution Magnetic-Sector SIMS for Advanced Semiconductor and Materials Science Applications ( <a href="#">Abstract</a> )
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 ( <a href="#">Abstract</a> )
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 ( <a href="#">Abstract</a> )
2:30 PM	Cheryl Hartfield, Waviks	Adding Light to Your Microscope: A Review of Applications Enabled by Optical Delivery in FIB-SEM ( <a href="#">Abstract</a> )
2:50 PM	Break	

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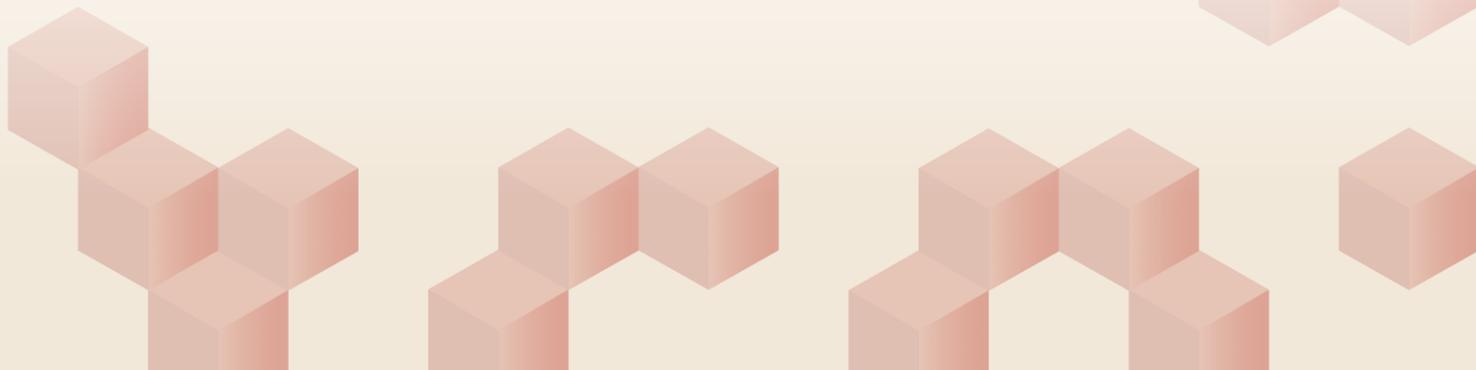
## Continued

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

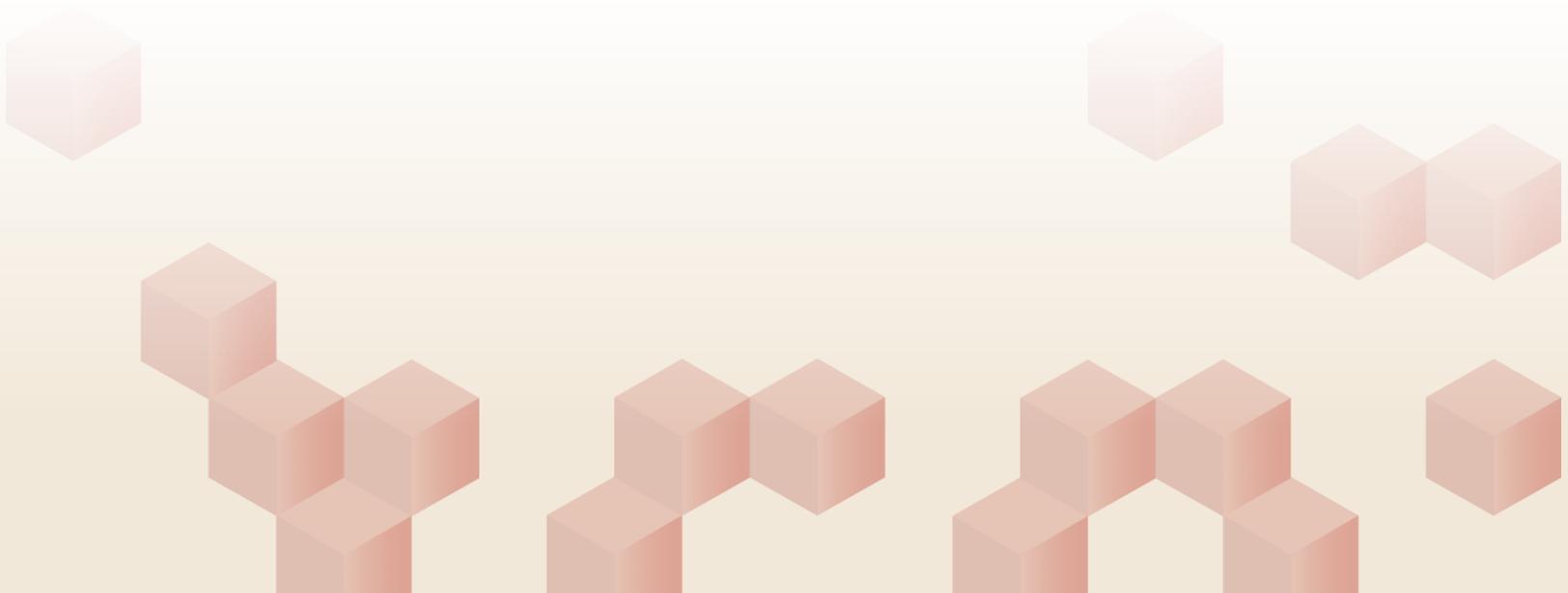


# Posters

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



# Meeting Notes



# Meeting Notes

