



## Program

### 60<sup>th</sup> Anniversary Meeting of the TSM The University of Texas at Austin



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#### Thursday, 19th of February 2026 - Workshops

University of Texas at Austin, Center for Biomedical Research Support Core Facilities (CBRS) and Texas Materials Institute (TMI)

8:00 a.m. - 9:00 a.m.	<b>Breakfast@ CBRS meeting room, FNT 1.104</b> (sponsored by Gatan, Nikon, Zeiss)
9:00 a.m. - 12:00 p.m.	<b>Workshops - Morning sessions.</b> University of Texas at Austin; CBRS and TMI <b>1.) Transmission Electron Microscopy of Biological Samples and Materials by Fernando Castro</b> (sponsored by Gatan) Room: MBB 1.426C <b>2.) Advanced EELS Imaging using Direct Electron Detector by Xun Zhan</b> (sponsored by TMI) Rooms: EER 0.762 <b>3.) Super Resolution Confocal Laser Scanning Microscopy by Jacob Burnett</b> (sponsored by Nikon) Rooms: MBB 1.426U <b>4.) Variable Pressure Scanning Electron Microscopy of Sensitive Specimen by Anthony Lisi</b> (sponsored by Zeiss) Rooms: MBB 1.426A
12:00 p.m. - 1:00 p.m.	<b>Lunch@ CBRS meeting room, FNT 1.104</b> (sponsored by Gatan, Nikon, Zeiss)
1:00 p.m. - 4:00 p.m.	<b>Workshops - Afternoon sessions.</b> University of Texas at Austin; CBRS and TMI <b>1.) Transmission Electron Microscopy of Biological Samples and Materials by Fernando Castro</b> (sponsored by Gatan) Room: MBB 1.426C <b>2.) Advanced EELS Imaging using Direct Electron Detector by Xun Zhan</b> (sponsored by TMI) Rooms: EER 0.762 <b>3.) Super Resolution Confocal Laser Scanning Microscopy by Jacob Burnett</b> (sponsored by Nikon) Rooms: MBB 1.426U <b>4.) Variable Pressure Scanning Electron Microscopy of Sensitive Specimen by Anthony Lisi</b> (sponsored by Zeiss) Rooms: MBB 1.426A
7:00 p.m. - 10:00 p.m.	<b>Social Reception. Scholz Garten</b> (Social Reception) Scholz Garten at 1607 San Jacinto Blvd, Austin

#### Friday, 20th of February 2026 - Scientific Program

UT Austin - Peter O'Donnell building (POB); 201 E 24th St, Austin, TX 78712

8:00 a.m. - 10:00 a.m.	<b>Registration.</b> POB - Lobby (2.310)
8:00 a.m. - 10:00 a.m.	<b>Breakfast.</b> POB - Lobby (2.310)
8:00 a.m. - 10:00 a.m.	<b>Vendor Setup.</b> POB - Hallways
8:00 a.m. - 10:00 a.m.	<b>Poster Setup.</b> POB 2.404 - TACC Vis Lab
8:25 a.m. - 11:25 a.m.	<b>1<sup>st</sup> Session; POB - Avaya auditorium</b> <b>Session Chair: Mari Salmi</b>
8:25 a.m. - 8:30 a.m.	<b>Opening Remarks.</b> Josefina Arellano, TSM President Michelle Mikesh, Program Chairperson
8:30 a.m. - 9:20 a.m. <i>Invited Speaker</i>	<b>In Vivo Microscopy of Microvasculature Following Brain Injury</b> <u>Andrew Dunn</u> The University of Texas at Austin
9:20 a.m. - 9:35 a.m.	<b>High-Resolution Cryo-EM Native IgM Structures and Cryo-ET Visualization of IgM Interactions with HBV Subviral Particles in Patient Serum</b> <u>Chang Liu</u> The University of Texas at Austin
9:35 a.m. - 9:50 a.m.	<b>Unveiling the Structure of Leishmania Flagella Through Cryo-Electron Tomography</b> <u>Dylan Wilburn</u> University of Texas Southwestern Medical Center, Dallas
9:50 a.m. - 10:05 a.m. <i>Student Competition</i>	<b>A Procedure for Sectioning and Imaging Woody Tissue without Softening</b> <u>Ikechukwu Opara</u> Texas State University, San Marcos
10:05 a.m. - 10:20 a.m. <i>Corporate Speaker</i>	<b>Advancements in Targeted Ultramicrotomy for Correlative and Volume Electron Microscopy Workflows</b> <u>Mercedeh Yeganeh</u> Leica Microsystems Inc., Deerfield, IL

10:20 a.m. - 10:35 a.m. <i>Student Competition</i> <i>Small Grant Awardee 2025</i>	<b>Bioimaging Application of Carbon Nanoparticles at the Multicellular Organismic Level Using <i>Drosophila melanogaster</i> larva</b> <u>Hammed Faleke</u> Texas Tech University, Lubbock
10:35 a.m. - 10:50 a.m. <i>Student Competition</i>	<b>Lumogallion Staining for Detection of Aluminum Nanoparticle Accumulation Within Whole <i>Drosophila melanogaster</i> Tissue Samples</b> <u>Jeremy Thompson</u> Baylor University, Waco
10:50 a.m. - 11:05 a.m.	<b>PilY1-Mediated Surface Sensing Regulates Bacterial Accumulation on Hydrogel Surfaces Revealed by Atomic Force Microscopy and Single-Cell Force Spectroscopy</b> <u>Jiachun Shen</u> The University of Texas at Austin
11:05 a.m. - 11:25 a.m.	<b>Focusing in on Six Decades of Microscopy in Texas</b> <u>Bernd Zechmann</u> Baylor University, Waco
11:25a.m.	60 <sup>th</sup> TSM Anniversary Member's Group Picture
11:30 a.m. - 12:30 p.m.	<b>Poster Session and Vendor Exhibit</b> POB - Hallways and TACC Lab Vis
12:00 p.m.- 1:00 p.m.	<b>Lunch</b> POB - Lobby (2.310)
12:30 p.m.-1:30 p.m.	<b>TSM Business Meeting</b> Room: POB - Avaya auditorium
1:30 p.m. - 3:00 p.m.	<b>Poster Session and Vendor Exhibit and Special Feature</b> POB - Hallways and TACC Lab Vis
3:00 p.m. 6:15 p.m.	<b>2<sup>nd</sup> Session; POB - Avaya auditorium</b> <b>Session Chair: Casey Smith</b>
3:00 p.m. - 3:50 p.m. <i>Invited Speaker</i> <i>Sponsored by MSA</i>	<b>Directly Imaging Atomic Structure, Strain, and Disorder</b> <u>Peter Ercius</u> National Center for Electron Microscopy, Lawrence Berkeley National Laboratory, Berkeley, CA
3:50 p.m. - 4:05 p.m. <i>Corporate Speaker</i>	<b>Advancements in XPS Depth Profiling Using Femtosecond Laser Ablation (fs-LA) for Thin Film and Oxide Surfaces</b> <u>James Lallo</u> Thermo Fisher Scientific, Hillsboro, OR
4:05 p.m. - 4:25 p.m. <i>Student Competition</i>	<b>Microscopy Insights into Laser-Induced Dopant Incorporation in Polycrystalline Diamond</b> <u>Adedayo A. Alaga</u> Texas State University, San Marcos
4:25 p.m. - 4:40 p.m. <i>Student Competition</i>	<b>Scalable Fabrication of Strongly Confined Tellurium Quantum Dots Using Glancing Angle Deposition</b> <u>SM Sayem</u> University of Arkansas at Little Rock
4:40 p.m. - 4:55 p.m. <i>Student Competition</i>	<b>Indium Incorporation Dynamics Study of Orthorhombic <math>\kappa</math>-<math>(In_xGa_{1-x})_2O_3</math></b> <u>Mahamudul Hassan Fuad</u> Texas State University, San Marcos
4:55 p.m. - 5:10 p.m. <i>Student Competition</i>	<b>Structure-Emission Correlations in Zero-Dimensional Cesium Lead Mixed-Halide Perovskite Nanocrystals</b> <u>Md Musfiqur Rahman</u> The University of Texas at Dallas
5:10 p.m. - 5:25 p.m. <i>Student Competition</i>	<b>Non-Destructive Quality Assessment of Bonded Wafers using Electrochemical Impedance Spectroscopy</b> <u>Tanbir Sarowar</u> Texas A&M University
5:25 p.m. - 5:40 p.m. <i>Student Competition</i>	<b>Shadowgraphy Approach to TGV and TSV Metrology and Sidewall Roughness Characterization</b> <u>Hyun Jae Lee</u> Texas A&M University, College Station
5:40 p.m. - 6:00 p.m.	<b>Student Awards; POB - Avaya auditorium</b> <b>Final and Closing Remarks</b>
	<b>Evening: Off-Site</b>
	<b>Dinner on Your Own</b>