

SURF Colloquium N1ST Plenary Session - August 3, 2026		Zoom link: https://nist.zoomgov.com/j/1611193419?pwd=jLFrLapFjtxcN45raSdm3NlTnmwJxJ.1	
Gaithersburg Green Auditorium & Boulder Bldg 1, Room 1107		Meeting ID: 1611193419	Passcode: 325093
11:00 AM MT	1:00 PM ET	Welcome Remarks & Gaithersburg Moderator: <i>Cara O'Malley</i>	Boulder Moderator: <i>Susan Schima</i> Zoom Moderator:
TIME (MT)	TIME (ET)	<i>Plenary Speaker</i> - OU (campus)	Presentation Title
11:05 AM	1:05 PM	<i>Gabriel Rosen-Turits</i> - CTL (Boulder)	Radiation in Coplanar Waveguides at High Frequencies
11:30 AM	1:30 PM	<i>Juliana Escuti</i> - ITL (Gaithersburg)	Continuous Validation of BF Specifications of Input/Output Check Related CWEs
11:55 AM	1:55 PM	<i>Dinah-Luba Beylison</i> - EL (Gaithersburg)	Using Machine Learning to Enable Continuous Uncertainty Quantification of a Digital Twin for an Industrial Robot
12:20 PM	2:20 PM	<i>Vivia Nguyen</i> - MML (Gaithersburg)	How Many is Too Many: Drug Sensitivity Drifting in Long Passaging HG009 Clonal Cell Lines
12:45 PM	2:45 PM	BREAK	N/A
1:00 PM	3:00 PM	<i>Miles Antaya</i> - PML (Gaithersburg)	Bond Strength Measurements of Semiconductor Wafers
1:25 PM	3:25 PM	<i>Reece Tippery</i> - NCNR (Gaithersburg)	Evaluation of Droplet Breakup and Mixing in a Millifluidic Droplet Generator
1:50 PM	3:50 PM	<i>Adriano Cristaldi</i> - PML (Boulder)	Optimizing Novel Imaging Protocols to Study Microwave Propagation in the Human Body
2:15 PM	4:15 PM	END OF PLENARY SESSION	N/A

		Parallel Session #1	Parallel Session #2	Parallel Session #3
Parallel Sessions Tuesday, Aug 4, 2026	Location	Gaithersburg, Bldg 101, Heritage Room	Gaithersburg, Bldg 101, Portrait Room	Gaithersburg, Bldg 101, Lecture Room D
	Zoom Link	https://nist.zoomgov.com/j/1619541627?pwd=tPz5aBzJx2M7i9vrphwLjHJK5gVaXS.1 Meeting ID: 1619541627 Passcode: 212437	https://nist.zoomgov.com/j/1615780237?pwd=92arHgOojqT02Yst9izLbOPtdAPOMT.1 Meeting ID: 1615780237 Passcode: 121275	https://nist.zoomgov.com/j/1616477556?pwd=Z2M6Ywv9dRh2xaYzBldZk8Tf8eqAuk.1 Meeting ID: 1616477556 Passcode: 222229
		Host Laboratory: PML	Host Laboratory: EL	Host Laboratory: MML
Time (ET)	Host Info	Moderator: Josh Pomeroy Zoom Moderator: Christina Hacker	Moderator: Patrick Dixon Zoom Moderator: Cartier Murrill	Moderator: Dilara Meli Zoom Moderator: Dan Siderius
	9:00 AM	Myriam Bajani - Cryogenic LC Resonators for RF Reflectometry and Sub-pF Capacitance Measurements	Ambika Anand (CHIPS) - Characterization of Underfills for Reliable Semiconductors	Bridgette Bidwell (CHIPS) - A Density Functional Theory and Machine Learning Workflow for Point Defects in Semiconductors
	9:15 AM	Tenaya Chen Lin - Developing an Interferometric Method for Dose Distribution Measurement in FLASH Radiotherapy Using Inverse Abel Reconstruction	Natalia Quesada Marshall - Spectral Fingerprinting of Pyrrhotite Reactions in Concrete	Aditi Gali (CHIPS) - Additive-Assisted Electrochemical Deposition for Efficient Indium Recovery from Electronic Waste
	9:30 AM	Blayne Fuller (CHIPS) (Recorded presentation) - Automated and Scalable Fast Id-Vg Measurements for SiC Transistor Reliability Characterization	Evelyn Cabrera Hernandez - Mitigating Pyrrhotite-Induced Concrete Damage Through the Application of Sealants and Coatings	Ryan Giang (CHIPS) - Selective Recovery of Indium from E-Waste via Organic Mixed Conductors
	9:45 AM	Eugene Im - Position Correlation of Biphotons Using Gated Single Photon Imaging Method	Illai Faiman - Mapping Pyrrhotite-Driven Internal Aulfate Attack in Concrete Foundations with XRF	Logan Magaha (CHIPS) - CD-SAXS Code Advancements and Round Robin for Development of a New Calibration Standard
	10:00 AM	Lavanya Mahajan (CHIPS) - Defect Characterization of SiC MOSFETs Using Electrical Measurements and EDMR	Alexander Ibacache - Expansion and Degradation of Two-Dimensional Configurations of Fused Quartz and Cement	Janet Park (CHIPS) - Optimizing High-Resolution DLP-SLA 3D Printing for Microfluidic Prototyping
	10:15 AM	BREAK	BREAK	BREAK
Time (ET)	Host Info	Host Laboratory: PML Moderator: Daniel Jardin Zoom Moderator: Christina Hacker	Host Laboratory: EL Moderator: Cartier Murrill Zoom Moderator: Katherine Hoffman	Host Laboratory: MML Moderator: Yvonne Gerbiq Zoom Moderator: Trina Mouchahoir
	10:30 AM	Juandiego Astudillo - Progress Developing Frequency-Multiplexed Data Acquisition for Charged Particle Thermal Kinetic Inductance Detector	Evan Taller - Investigating Corrosion Properties of Steel Reinforcements in Concrete Made With Alternative Cement Formulations	Christopher Gutowski (CHIPS) - Characterizing HfO2 and TiN-Gold thin-films using Ellipsometry and X-ray Reflectivity
	10:45 AM	Matthew Bertagna - Pulse Processing of Initial Charged Particle Data from Prototype Thermal Kinetic	Jessica Wang - Photodegradation Mechanism Study of Polypropylene (PP)	Salihcan Kremer (CHIPS) - Mechanical Characterization of Through-Glass Vias (TGVs) via Nanoindentation
	11:00 AM	Thomas Gallagher - Characterization of a Scintillation-Based Neutron Detector	Caleb Vu (CHIPS) - Reliability Testing of an Underfill and a Thermal Interface Material for Advanced Packaging	Ethan Tan (CHIPS) - Characterizing Copper Microstructures for Enhanced Hybrid Bonding Reliability via Nanoindentation
	11:15 AM	Asher Greenberg - Modernizing an Automated Ionization Chamber for Secondary Radioactivity Standards	Michael Donnelly - Automating a Refrigerant Flammability Experiment	Giorgia Santore (CHIPS) - Formulating epoxy underfill materials for microelectronics packaging
	11:30 AM	Kai Tucker - Novel Monte Carlo Simulation of High-Purity Germanium Detector for Characterization of NIST Standard X-ray Beams	Ethan Nee - Evaluating Dehumidifier Energy Standards Under Real-World Conditions	Justin Chen - Identifying Process Windows for Crystalline GaN Growth Using Molecular Dynamics
	11:45 AM	LUNCH	LUNCH	LUNCH
Time (ET)	Host Info	Host Laboratory: CTL Moderator: Wesley Garey Zoom Moderator: Jian Wang	Host Laboratory: EL Moderator: Katherine Hoffman Zoom Moderator: Theresa Ginley	Host Laboratory: MML Moderator: Tom Forbes Zoom Moderator: Trina Mouchahoir
	12:30 PM	Josslyn Quansah - Analysis of Prompt Variation on RLHF LLM Generated Data Quality		
	12:45 PM	Andrew Waggar - A Look at Decentralized Wireless Networks: Visualizing 5G NR ProSe Scenarios	Victor Mathias - Validating a New Test Method for Pressure Loss in Modern Plumbing Fittings	Isabella Archiello - Using Machine Learning and Atomistic Simulation to Predict Antibody Melting Temperatures
	1:00 PM	Chloe Thompson - Automated Manuscript Compliance Assessment Tool	Bri Grindrod - Pressure Loss Testing of Modern Plumbing Fittings	Maria Grishaeva - The Impact of Surface Amino Acid Mutations on the Solubility of NISTmAb
	1:15 PM	Kevin Song - Edge AI-Enabled Smart LiDAR Sensors for C-V2X ISAC	Sania Manyem - Semantic Interoperability for Cybersecurity in Buildings	Khanh Nguyen - Effect of lipid PEG-ylation on Interactions and Stability of Lipid Particles with Antimicrobial Peptides
	1:30 PM	Joy Roberts - Evaluating V2X Non-Terrestrial Network Performance Through Digital Simulation Tools	Philip Lee - Modeling Photovoltaic Performance from Irradiance Database for Indoor Light Reference Spectra	Eleanor Hamby - Measurement Science and Standards for Scale-Out Distributed Pharmaceutical Manufacturing
	1:45 PM	Jonathan Rich - C-V2X Network Performance Assessment Tool	Anna Linteris (CHIPS) - Characterizing Defects within Silicon Carbide Semiconductors through Hyperspectral Ultraviolet Photoluminescence Spectroscopy	Amie Zeng - Analysis and Visualization of Rapid Street Drug Measurement Data
	2:00 PM	BREAK	BREAK	BREAK
Time (ET)	Host Info	Host Laboratory: CTL & RDCO Moderator: June Lau Zoom Moderator: Chandler Becker	Host Laboratory: EL Moderator: Theresa Ginley Zoom Moderator: Cartier Murrill	Host Laboratory: MML Moderator: Ian Hines Zoom Moderator: Jackie Mann
	2:15 PM	Owen Lin (CTL) - Machine Learning Sensing Abstraction for ISAC System Level Simulation	Dawoon Jung - Curating and Encoding ML Asset Metadata into MLLO	Lindsey Walter - Glowing Microbes: Characterizing and Measuring Soil Microbial Communities via Fluorescence
	2:30 PM	Chitpreet Kaur (RDCO) - Getting Instrumental: Developing a Centralized Instrument Database for Scientific Traceability	Aditya Mishra - Vector Database and RAG Integration for Additive Manufacturing Terminologies	Sophia Yang - Inducible Plasmid Copy Number Systems in Cell-Free and Cell-Based Experiments
	2:45 PM	Sana Girish Rao (RDCO) - Streamlining the NIST Public Data Repository Collection Taxonomy Generation	Mansour Mbow - Knowledge Maintenance in Additive Manufacturing: Leveraging MCP AI Agents for Shop Floor Data	Sheling Cai - Machine Learning Classification of PFAS from Liquid Chromatography-Mass Spectrometry Data

	3:00 PM	Adam Zhu (RDCO) - Usage & Discovery Patterns of the NIST Data Repository	Nimal Muthukumar - Mapping Machine Learning Metadata to the Machine Learning Lifecycle Ontology	Marcos Paulino - Characterization of Oropouche Virus RNA
	3:15 PM	Lucas Rubin (RDCO) - The Data Integrity Project: An Ontological Approach to Research Data Integrity in the Age of Agentic AI	Charles Bradshaw - Benchmarking the Performance of Mobile Manipulator End Effector Trajectories	Shannon Horning (COO) : A Data-Driven Analysis of NIST Research Visibility in the Life Sciences
	3:30 PM	BREAK	BREAK	BREAK
Time (ET)	Host Info	Host Laboratory: ITL	Host Laboratory: EL & TPO	Host Laboratory: MML & COO
		Moderator:	Moderator:	Moderator: Hugh Hayes
		Zoom Moderator: Yolanda Bursie	Zoom Moderator: John Bittman	Zoom Moderator: Jackie Mann
	3:45 PM	Walter Roou - Lost in Terminology: How Everyday Americans Perceive Digital Identity Language	McCarthy Devine (EL) - Development of Standard Test Artifacts and Hard Gaging Kits for the Dimensional Assessment of Internal Channels in Metal Additive Manufacturing	Julia Januszewski - Shining a Light on Kava: Advanced LC-FLD Method Development for Kava RM Characterization
	4:00 PM	Isabella Tai - Investigating DevSecOps for IoT Device Development	Alex Tamagno (EL) - Implementation of IEEE Standard for Robotic Task Representation in ARIAC	Julia Tisaranni - Optimizing the Development of Metal-Organic Frameworks Through Autonomous Design
	4:15 PM	Shaune Yeboah - Modernizing NIST Workforce Guidelines for an Evolving Digital Landscape	Michael Aladejebi (EL) - Temperature Effects on Reciprocity in 6-Port SPHERE	Rachel Lee - Ab Initio Electron-Molecule Scattering Calculations for Methane Using UKRMol+ and ASTRA
	4:30 PM	Mikias Kelela - Looking Through the Noise: Analysis of the Electromagnetic Side-Channel of AES Implementation	Kristina Fleck (TPO) - Technology Transfer Comparative Case Analysis	Tejasvi Subramanya - Molecular Dynamics Simulation for Water Sorption Effects on Epoxy Electronics Packaging
	4:45 PM	Brittney Meza - Streamlining Digital Identity: Practical Tools for Risk Management and Standards Tracking	Joy Ghosh (TPO) -	Siena Iavarone-Garza (CHIPS) - Effect of Semiconductor Packaging Interfaces on the Hygrothermal Response in Polymer Films
	5:00 PM	END for the Day	END for the Day	END for the Day
(CHIPS) - Support for these projects provided by the CHIPS for America R&D Office within NIST.				

