SURF Student Colloquium: Tuesday - August 5, 2014
Plenary Session: Green Auditorium, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
9:00A			Introduction	
MODERATOR:				
9:15A	Joshua Graybill	University of Maryland College Park	Hydro-Mechanical Response of Thin-Film Polyelectrolyte Membrane Materials for Fuel Cells	MML/NCNR MatSci
9:45A	Andrew Briggs	Bates College	Raman and Infrared Studies of Few Layered $TaSe_2$	PML/ElecEng
10:15A	Gary Eurice	University of Maryland Baltimore County	Analysis of Factors in Photovoltaic EVA Degradation	EL
10:45A	Cathryn Ploehn	University of Texas Dallas	The Authentication Equation: Visualizing the Convergence of Security and Usability of System-Generated Passwords	ITL
11:15A	Eric Marksz	University of Pittsburgh	Applications of Laser-Cooled Lithium Ion Source Focused Ion Beam Technology for Materials Analysis and Processing	CNST
11:45A	Maria Kaplan	University of Maryland College Park	Uniaxial Orientation of Polymers: Fabrication of Anisotropic Organic Semiconductor Films	MML/NCNR ChemBio
12:15P	Arec Jamgochian	University of Maryland College Park	Development of a High Resolution Photonic Spectrometer	PML/Physics
12:45P	***LUNCH – SURF DIRECTORS AND EXTERNAL VISITORS (Dining Rooms A & B, Building 101)***			

SURF Student Colloquium: Tuesday - August 5, 2014
Parallel Session: Lecture Room A, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR: ***Tabbetha Dobbins, Rowan University and*** ***Chris Kassner, Rowan University and Naval Research Laboratory***				
2:20P	Kevin Talley	Boise State University	Optimization and Characterization of Perovskite Oxides as Potential Thermoelectric Materials	MML/NCNR MatSci
2:40P	Jared Carter	University of Florida	Synthesis, Crystal Structures, and Phase Transitions in $(Na,Li)(Nb,Ta)O_3$ Ceramics	MML/NCNR MatSci
3:00P	Daniel Kutzik	Alfred University	A Molecular Dynamics (MD) Study of Surfactant Self-Assembly on Single-Walled Carbon Nanotubes (SWCNTs)	MML/NCNR MatSci
3:20P	Meagan Papac	Boise State University	Multi-Scale Characterization of Selective Sorbent Materials Through X-Ray Scattering Techniques	MML/NCNR MatSci
3:40P	Eric Nelson	Boise State University	Modeling Materials for a Better Tomorrow: Computational Studies of Carbon Capture Materials MIL-53 and BPene	MML/NCNR MatSci
4:00P	Charles Scott	Rowan University	Micro- and Meso-Porous Structure Analysis of CO_2 Capture Materials Using Gas Sorption	MML/NCNR MatSci
4:20P	Jarod Horn	Montgomery College	Evaluate CO_2 Sorption Properties of Molecular Sieves with Distinct Pore Sizes and Extra-Framework Cations	MML/NCNR MatSci
4:40P				
5:00P	***END OF DAY***			

SURF Student Colloquium: Tuesday - August 5, 2014
Parallel Session: Lecture Room B, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR: ***Brandi Toliver, International and Academic Affairs Office, NIST***				
2:20P	Signe Braafladt	Saint Olaf College	The Comet Assay: Methods for Quantitative Image Analysis and Reproducibility	MML/NCNR ChemBio
2:40P	Swaksha Rachuri	University of Maryland College Park	Molecular Cloning and Characterization of Adenylyl Cyclase Class II Secreted from *Pseudomonas Aeruginosa*	MML/NCNR ChemBio
3:00P	Megan Madonna	Vanderbilt University	Automating the Culture of Microbial Biofilms	MML/NCNR ChemBio
3:20P	Abigail Jackson	University of Maryland Baltimore County	New Generation Dental Resin Composites	MML/NCNR ChemBio
3:40P	Elianna Bier	Augsburg College	Automated Live Cell Imaging of Stem Cells Expressing Green Fluorescent Protein	MML/NCNR ChemBio
4:00P				
4:20P				
4:40P				
5:00P	***END OF DAY***			

SURF Student Colloquium: Tuesday - August 5, 2014
Parallel Session: Lecture Room D, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR: ***Isabel Beichl, Information Technology Laboratory SURF Director, NIST***				
2:20P	Jane Pan	University of Maryland Baltimore County	Identifying Distinct Regions in Multi-Material Microstructure Images with Clustering Algorithms	ITL
2:40P	Timothy Kim	University of Maryland College Park	Large Image Visualization	ITL
3:00P	Jared McAndrews	Millersville University of Pennsylvania	Evaluation of Development Technologies and Usability Design for Cross-Platform/Cross-Device Biometric Applications	ITL
3:20P	Paul Watrobski	State University of New York Binghamton	Software Defined Radio Development for Spectrum Monitoring	ITL
3:40P	Behnaz Ghouchani	City University of New York	Developing New and More Efficient Ways to Solve the Time-Dependent Schrödinger Equation (TDSE)	ITL
4:00P	Brandon Alexander	University of Maryland Baltimore County	*R*-Separation of Laplace's Equation in Rotationally-Invariant Cyclidic Coordinates	ITL
4:20P	Jessie Hirtenstein	American University	Convergence of Magnus Integral Addition Theorems for Confluent Hypergeometric Functions in Terms of Bessel and Parabolic Cylinder Functions	ITL
4:40P				
5:00P	***END OF DAY***			

SURF Student Colloquium: Tuesday - August 5, 2014
Parallel Session: Portrait Room, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR: ***Cameron Miller, Physical Measurement Laboratory/Physics SURF Director, NIST***				
2:20P	Jesse Kosior	Rowan University	Investigating Methods for Safe Vaccine Transportation	PML/Phys
2:40P	Melissa Guidry	College of William and Mary	Characterizing the First All-Biological Single Photon Source	PML/Phys
3:00P	Freddy Cisneros	El Camino Community College	Evaluation of a New Dosimeter for Industrial Radiation Processing	PML/Phys
3:20P	Laura Andre	Saint Mary's College of Maryland	Laser Interferometry for Radiation Dosimetry	PML/Phys
3:40P	Lauren Cronise	West Virginia Wesleyan College	CT Imaging of the Lungs and Investigation of Dual Energy CT	PML/Phys
4:00P	Mira Fein	Oberlin College	Creating a Color Preference Index	PML/Phys
4:20P				
4:40P				
5:00P	***END OF DAY***			

SURF Student Colloquium: Tuesday - August 5, 2014
Parallel Session: Heritage Room, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR: ***Christopher White, Engineering Laboratory SURF Director, NIST***				
2:20P	Alejandra Dominguez	Florida Institute of Technology	Data Preprocessing and Characterization for Manufacturing Power Data	EL
2:40P	Chelsea Vane	University of Maryland Baltimore County	Application of Machine Learning Techniques for Manufacturing	EL
3:00P	Bowen Zhi	University of Maryland College Park	Seeing is Believing: Visual Data Analytics for Smart Manufacturing	EL
3:20P	Jordan Senatore	Florida Institute of Technology	The Use of Discrete Event Simulation for Assuring the Performance of a Manufacturing System	EL
3:40P	Susan McGrattan	Cornell University	Water Consumption in Manufacturing Processes	EL
4:00P	Conor McCoy	University of Maryland College Park	Development of Low-Cost Data Acquisition Devices for Extreme Hazard Applications	EL
4:20P				
4:40P				
5:00P	***END OF DAY***			

SURF Student Colloquium: Wednesday - August 6, 2014
Parallel Session: Lecture Room A, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR: ***Charles Ying, National Science Foundation***				
9:00A	Joelle Baer	Hamilton College	See You on the Flipped Side: The Construction and Optimization of RF Coils Used to Flip ^{3}He Polarization	MML/NCNR MatSci
9:20A	Hoan Lee	Marquette University	The Role of Size and Crystallinity on Magnetic Nanoparticle Response	MML/NCNR MatSci
9:40A	Teresa Turmanian	Juniata College	Magnetic Ground State of Industrial Sensors	MML/NCNR MatSci
10:00A	Joseph Lesniewski	Mount Saint Mary's University	Interactive Data Analysis of Neutron Scattering Data	MML/NCNR MatSci
10:20A	Andrew Heindel	James Madison University	Computational Methods to Analyze Small Angle Scattering Data of Biological Molecules & Free Energy Calculations to Validate Structural Ensembles	MML/NCNR MatSci
10:40A	***BREAK***			
MODERATOR: ***Dan Neumann, NIST Center for Neutron Research, NIST***				
11:00A	Jorge Hernandez Sanchez	Clemson University	Could Fish Help Treat Cancer?	MML/NCNR MatSci
11:20A	Bonnie Newman	Geneva College	Extensional Flow-SANS of Wormlike Micelles	MML/NCNR MatSci
11:40A	Aaron West	University of Washington	Exploring the Structure of Surfactants with Rheo-SANS in Two Dimensions	MML/NCNR MatSci
12:00N	Jeffrey Self	Universty of Texas Austin	Quasi-Elastic Neutron Scattering of Methanol Aggregates	MML/NCNR MatSci
12:20P	Stephanie Gnewuch	Otterbein University	Neutron Powder Diffraction Experiments of Nitrogen and Oxygen Adsorption in Metal-Organic Frameworks to Estimate Adsorption Selectivity for Gas Separations	MML/NCNR MatSci
12:40	***LUNCH***			

SURF Student Colloquium: Wednesday - August 6, 2014
Parallel Session: Lecture Room A, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR*:** ***Robert Shull and Terrell Vanderah, Material Measurement Laboratory/MatSci SURF Directors, NIST				
1:30P	Alexander Kordell	University of Maryland College Park	Materials Informatics for the Materials Genome Initiative	MML/NCNR MatSci
1:50P	David Lichtman	Virginia Polytechnic Institute and State University	Reproduction and Characterization of Commercial Cu-Ni-Zn Alloys	MML/NCNR MatSci
2:10P	Daniel Lepkowski	Louisiana State University and Agricultural and Mechanical College	Measurement of the Magnetocaloric Effect in Ni-Mn-Al Type Alloys	MML/NCNR MatSci
2:30P	Kyle Stritch	Lehigh University	FORC Measurements Using the Anomalous Hall Effect: A FeCuPt $L1_0$ Case Study	MML/NCNR MatSci
2:50P	David Marin	University of Maryland College Park	An Extraordinary Hall Effect Susceptometer for Fast Measurements of Magnetic Media	MML/NCNR MatSci
3:10P	***BREAK***			
3:20P	Laura Byrnes-Blanco	University of South Florida	Examination of a 3D Printed Biocompatible Polymer for Stents	MML/NCNR MatSci
3:40P	Christopher Reynolds	Virginia Polytechnic Institute and State University	RM for Strain Measurements in SEM	MML/NCNR MatSci
4:00P	Joshua Goldman	University of Maryland College Park	Optical Calibration of Nanocalorimeter Chips Using Infrared Camera	MML/NCNR MatSci
4:20P	Rohan Mittal	University of Maryland College Park	Unidirectional Ballistic Resistant Laminates	MML/NCNR MatSci
4:40P				
5:00P	***END OF DAY***			

SURF Student Colloquium: Wednesday - August 6, 2014
Parallel Session: Lecture Room B, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE OF TALK	LAB
MODERATOR: ***Catherine Rimmer, Material Measurement Laboratory/ChemBio SURF Director, NIST***				
9:00A	Shayla Duncan	Alabama State University	Development of a Standard Toxicity Assay for Nanomaterials Using *Caenorhabditis elegans*	MML/NCNR ChemBio
9:20A	Rachel Golan	University of Maryland College Park	Toxicity of TiO_2 Nanoparticles *in vitro* and *in vivo*	MML/NCNR ChemBio
9:40A	Tanya Shi	Yale University	Measuring the Concentration of Specific Metallic Ions in Solution Through Induced Nanoparticle Aggregation	MML/NCNR ChemBio
10:00A	Caitlyn Maczka	University of Maryland Baltimore County	Evaluating Dual Platforms for Bone and Vascular Regeneration	MML/NCNR ChemBio
10:20A	Tsega Solomon	University of Maryland College Park (Milligan Scholar)	Optimizing Online Proteolysis for Hydrogen Deuterium Exchange-Mass Spectrometry (HDX-MS)	MML/NCNR ChemBio
10:40A	***BREAK***			
MODERATOR: ***Christopher Szakal, Material Measurement Laboratory/ChemBio SURF Director, NIST***				
11:00A	Martin Shetty	Montgomery College	Data Acquisition and Reduction Software for Multi-Detector Prompt Gamma Neutron Activation Analysis System at NCNR	MML/NCNR ChemBio
11:20A	My Duyen Le	Montgomery College	Investigating the Influence of Temperature and Acid Matrix on the Determination of Arsenic in the Arsenic Speciation Reference Standards	MML/NCNR ChemBio
11:40A				
12:00N				
12:20P				
12:40P	***LUNCH***			

SURF Student Colloquium: Wednesday - August 6, 2014
Parallel Session: Lecture Room B, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR*: *Charles Romine & James St. Pierre, Information Technology Laboratory, NIST				
1:30P	Jacob Collard	Swarthmore College	Automatic Ontologies: Standardized Terminology Generation for Document Comparison and Search	ITL
1:50P	Mohamed Gueye	City University of New York	Leveraging Web Development Infrastructure for 2D and 3D Visualizations	ITL
2:10P	Luis Catacora	University of Maryland College Park	D3 Spatial Decomposition Visualization Validation Tool for Cement Hydration	ITL
2:30P	Ayotunde Olutade	Jackson State University	Exploration of NIST Mass Spectroscopy Data with D3	ITL
2:50P	Jacob Siegel	University of Maryland College Park	Viewing Stem Cells in Three Dimensions on a Large Scale	ITL
3:10P	***BREAK***			
3:20P	Sung-ho Oh	Brown University	Maximizing the Spread of Information in Communication Networks	ITL
3:40P	Paul Sabbagh	Bowie State University	CPCC: A Cyber Physical Cloud Computing Testbed	ITL
4:00P	Joseph Wu	Stanford University	Smart and Synchronized!: Modeling the Effect of Time Offset in Power Flows Across the Smart Grid	ITL
4:20P	Kamal Mayo	University of the District of Columbia	Test and Measurement of Emerging Border Gateway Protocol Security Mechanism	ITL
4:40P	Manuel Ortiz	Polytechnic University of Puerto Rico	Real-Time Analysis of Route Origin Validation of Border Gateway Update Stream	ITL
5:00P	***END OF DAY***			

SURF Student Colloquium: Wednesday - August 6, 2014
Parallel Session: Portrait Room, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR:				
9:00A	Anil Adhikari	State University of New York Binghamton	Non-Destructive Analysis of Thermal Stress in Copper Through Silicon Via Using Time Domain Reflectometry	PML/ElecEng
9:20A	Casey Levine	State University of New York Binghamton	Parallel Programming to Quickly Generate Libraries of Images for 3D SEM-Based Dimensional Measurements	PML/ElecEng
9:40A	Derek Fogel	Wake Forest University	Residual Additive in Organic Photovoltaics	PML/ElecEng
10:00A	William Serrano-Garcia	University of Puerto Rico Humacao	Fabrication and Electrical Characterization of Rubrene Single – Crystal	PML/ElecEng
10:20A	Kayla Zimmerman	Appalachian State University	Electrical Measurements of Molecular Layers by Eutectic Gallium-Indium	PML/ElecEng
10:40A	***BREAK***			
MODERATOR:				
11:00A	Jennifer Sandoval-Casas	Polytechnic University of Puerto Rico	Testing an Electrical Power Frequency Disturbance Recorder (FDR) Device	PML/ElecEng
11:20A	James Fallon	City University of New York	Automating the Calibration of DMM Calibrators and Navigation Systems	PML/ElecEng
11:40A	Edward O'Brien	State University of New York Binghamton	High Resistance Characterization to 100 TΩ	PML/ElecEng
12:00N	Eric Leaman	James Madison University	Gravimetry for the NIST-4 Watt Balance	PML/ElecEng
12:20P	Vignesh Dhanasekaran	University of Maryland Baltimore County	Improvement of Systematic Uncertainties in Mass Calibration Using Robotic Comparators	PML/ElecEng
12:40P	***LUNCH***			

SURF Student Colloquium: Wednesday - August 6, 2014
Parallel Session: Portrait Room, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR:				
1:30P	Jacob Lineberry	North Carolina State University	Simulation of Cosmic and Background Radiation Through Detector Shielding	PML/Phys
1:50P	Ananya Sitaram	University of Rochester	Creating a Fast Piezo-Actuated Mirror for the Elimination of Fiber Noise	PML/Phys
1:50P	Alexander Debrecht	Juniata College	Describing the Quantum Character of Metallic Nanoparticle Plasmons	PML/Phys
2:10P	Kristina Dungan	Denison University	Ultra High Speed Electronics for Single-Photon Detection in Quantum Key Distribution	PML/Phys
2:50P	Ethan Clements	Miami University of Ohio	Feedback Controlled Magnetic Field Zeroing for Rare Earth Quantum Memory	PML/Phys
3:10P	***BREAK***			
3:20P	Noura Brock Jaber	Bryn Mawr College	Exploring the Electrical Properties of Carbon Nanotube Materials with Raman Spectroscopy	PML/Phys
3:40P	William Byron	Tulane University	Residual Gas Effect on aCORN	PML/Phys
4:00P	Mollie Bienstock	State University of New York Geneseo	Calibration of ^{22}Na Using the Sum-Peak Counting Method	PML/Phys
4:20P	Christopher Addiego	Carnegie Mellon University	Simulation of an Ion Beamline for Isotopically Enriched Silicon Deposition	PML/Phys
4:40P				
5:00P	***END OF DAY***			

SURF Student Colloquium: Wednesday - August 6, 2014
Parallel Session: Heritage Room, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE OF TALK	LAB
MODERATOR: ***Clarissa Ferraris, Engineering Laboratory SURF Director, NIST***				
9:00A	Leonard Jacques	University of Maryland Baltimore County	Interfacial Shear Strength Measurements for Hybrid Nanocomposites Using Fiber "Push" Methods	EL
9:20A	Paul Scott II	Morehouse College	Fun in the Sun: Characterization and Analysis of Photodegraded Polyethylene	EL
9:40A	Blake Thrift	Fayetteville State University	Examining Electrical Cable Degradation in Nuclear Power Plants	EL
10:00A	Michelle Helsel	Virginia Polytechnic Institute and State University	Standard Testing Methods for Density of Hydraulic Cement	EL
10:20A	Stephen Cauffman	Syracuse University	Improving Situational Awareness in Incident Responders Using Unmanned Aerial Systems	EL
10:40A	***BREAK***			
Moderator: ***Joshua Kneifel, Engineering Laboratory, NIST***				
11:00A	Ryan Miller	University of Texas Dallas	Developing a Domain Specific Model Library and Supporting Tools for Manufacturing Modeling and Optimization	EL
11:20A	Nick Du	University of Maryland College Park	Information Models for Sustainable Manufacturing	EL
11:40A	Andrew Bujarski	Saint John's University	Comparing Different Approaches for Measuring Environmental Performance in the Manufacturing Industry	EL
12:00N	Yadira Flores	Smith College	Measuring Sustainability in Commercial Buildings	EL
12:20P	Tarang Hirani	Hood College	BIRDS Residential: Measuring Sustainability	EL
12:40P	***LUNCH***			

SURF Student Colloquium: Wednesday - August 6, 2014
Parallel Session: Heritage Room, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE OF TALK	LAB
MODERATOR: ***Tania Ullah, Engineering Laboratory SURF Director, NIST***				
1:30P	Dennis Ngo	Montgomery College	Identifying the Sources of Error in Atmospheric Transport Gases	EL
1:50P	Scott Wiercinski	University of New Haven	Impact of Convective Heat on Firefighter Turnout Gear	EL
2:10P	Joseph Willi	University of Illinois Urbana-Champaign	Impact of Different Hose Stream Applications During Fire Suppression	EL
2:30P	Shelley Jin	University of Maryland College Park	Mayday! Mayday!: Investigating the Performance of Radio Cables in High Temperature Environments	EL
2:50P				EL
3:10P	***BREAK***			
3:20P	Sabrena Clayton	Fayetteville State University	Evaluating Nanofilm Coatings to Prevent Flammability in Household Furniture	El
3:40P	Benjamin Toms	University of Oklahoma	Large-Eddy Simulation of Flow Over a Backward Facing Step	EL
4:00P	Shane Leger	Eastern Kentucky University	The Application of Barrier Fabrics to Prevent Smoldering in Upholstered Furniture	EL
4:20P	Evan Eisenberg	University of Maryland College Park	Flammability Reduction in Upholstered Furniture	EL
4:40P				
5:00P	***END OF DAY***			

SURF Student Colloquium: Thursday - August 7, 2014
Parallel Session: Lecture Room A, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR: ***Robert Shull and Terrell Vanderah, Material Measurement Laboratory/MatSci SURF Directors, NIST***				
9:00A	Scott Anderson	State University of New York Binghamton	Micro-Viscometry of Reference mAb Protein Solution	MML/NCNR MatSci
9:20A	Mark Verdi	American University	Calculating Electrostatic Properties Using Lévy Flights	MML/NCNR MatSci
9:40A	Nicole Famularo	Monmouth University	pH Dependence of Colloid Surface Interactions in Charged Depletion Systems	MML/NCNR MatSci
10:00A	Matthew Wade	Case Western Reserve University	Calculation Hansen Solubility Parameters for Organic Solar Cells by the Cohesive Energy Density Method	MML/NCNR MatSci
10:20A	Carolyn Krasniak	Rochester Institute of Technology	DNA-Controlled Purification of Carbon Nanotubes	MML/NCNR MatSci
10:40A	***BREAK***			
MODERATOR: ***Michael Rowe, NIST Center for Neutron Research, NIST***				
11:00A	Scott Hallock	University of California Berkeley	Super Sheet Metal Stressing: The Stimulating Design Process of Two Straining Devices	MML/NCNR MatSci
11:20A	Bryan Eyers	University of Michigan	The Effects of Shim Arm Depletion and Xenon Buildup on Estimated Critical Positions in NBSR for New- and Mid-Cycle Startups	MML/NCNR MatSci
11:40A	Alexander Hull	Florida A&M University	Reactor Data at Your Desk V2.0	MML/NCNR MatSci
12:00N	James Torres	Rowan University	Cold Source Engineers: Maintenance and Operation of the PeeWee Cold Source	MML/NCNR MatSci
12:20P	Spencer Connor	Colorado School of Mines	Developing a System for Monitoring NCNR Fume Hood Radiation Levels	MML/NCNR MatSci
12:40P	***LUNCH***			

SURF Student Colloquium: Thursday, August 7, 2014
Parallel Session: Lecture Room A, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR: ***Tony Bryant, Alabama State University***				
1:30P	Matthew Oehler	James Madison University	Rhodopsin/G-Protein Studies via Nanodisc Lipid Bilayer	MML/NCNR MatSci
1:50P	Ariel Isser	University of Maryland College Park	Towards Robust, Universal Polymer Grafting	MML/NCNR MatSci
2:10P	Komal Shaikh	Pennsylvania State University York	Stress Development in Flowable Dental Resins Using a Cantilever Beam-Based Device	MML/NCNR MatSci
2:30P	John Epling	Purdue University	Mechanical Properties Characterization of Uniaxially Aligned Cellulose Nano-Crystal Films Utilizing Buckling Stabilities	MML/NCNR MatSci
2:50P	Shakeria Stewart	Alabama State University	Assessing Antibacterial Properties of Novel Dental Resins Containing Titanium Nanoparticles	MML/NCNR MatSci
3:10P	Christopher Wong	University of Maryland College Park	Enzymatic Biodegradation of Traditional and Novel Restorative Dental Resins	MML/NCNR MatSci
3:20P	***BREAK***			
3:40P	Joe Carpenter III	Arizona State University	Process Optimization of Polymer Solar Cells	MML/NCNR MatSci
4:00P	Samuel Degraft	University of Maryland College Park	Characterizing Transport Properties in Bilayer Membranes for Next-Generation Desalination Technology	MML/NCNR MatSci
4:20P	Ying-Heng Tein	University of Texas Austin	The Characterization of Relative Hydrogen-Bonding Strengths in AB Block Copolymer/C Homopolymer Blends	MML/NCNR MatSci
4:40P				
5:00P	***END OF DAY***			

SURF Student Colloquium: Thursday, August 7, 2014
Parallel Session: Lecture Room B, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR: ***Christopher Szakal, Material Measurement Laboratory/ChemBio SURF Director, NIST***				
9:00A	Alana Rister	Mary Baldwin College	Printing Drugs on Edible Substrates	MML/NCNR ChemBio
9:20A	Lourdes Bobbio	Massachusetts Institute of Technology	Metrology and Optimization of Additive Manufacturing and 3D Printing	MML/NCNR ChemBio
9:40A	Brooke Morgan	Middle Tennessee State University	MIX 13: A NIST Interlaboratory Study on the Present State of DNA Mixture Interpretation	MML/NCNR ChemBio
10:00A	Sonia Dermer	College of William and Mary	Three-Dimensional Structures for the NIST Chemistry WebBook: My Journey from Molecular Optimization to Self-Optimization	MML/NCNR ChemBio
10:20A	Ethan Ho	Reed College	Three-Dimensional Structures for the NIST Chemistry WebBook: My Journey from Molecular Optimization to Self-Optimization	MML/NCNR ChemBioi
10:40A	***BREAK***			
MODERATOR: ***Timothy Hall, Information Technology Laboratory, NIST***				
11:00A	Sarah Scheffler	Harvey Mudd College	Proposals for NIST Standards on Generation of Random Primes for Cryptography	ITL
11:20A	Skye Horbrook	Bowie State University	Real-Time Access Control Rule Fault Detection Using a Simulated Logic Circuit	ITL
11:40A	Robert Staples	Hood College	Massive Virtualization and Its Effects on Software Entropy Sources	ITL
12:00N	Daniel Lessoff	The College of New Jersey	Improvements in E-Mail Security: A DANE/OpenPGP Test System	ITL
12:20P	Andrea Bajcsy	University of Maryland College Park	Relating Quantitative Measurements to Human Assessments of Voting Ballot Mark Types	ITL
12:40P	***LUNCH***			

SURF Student Colloquium: Thursday, August 7, 2014
Parallel Session: Lecture Room B, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR: ***Isabel Beichl, Information Technology Laboratory SURF Director, NIST***				
1:30P	Sara Stoudt	Smith College	Correcting Temperature Records for Biases Unrelated to the Climate	ITL
1:50P	Mara Stutzman	Saint Olaf College	Stem Cell Enumeration: Using Simulations to Inform Experimental Design	ITL
2:10P	Maja Milosavljevic	Smith College	Seasonal and Spatial Patterns in the Atmospheric Concentration of Greenhouse Gases	ITL
2:30P	Adam Dachowicz	University of Oklahoma	A Comparative Assessment of the LPV Algorithm for Materials Science Keyword Extraction	ITL
2:50P	Lucianna Kiffer	Tulane University	Adjustments and Additions to the OOF Software	ITL
3:10P				
3:20P				
3:40P				
4:00P				
4:20P				
4:40P				
5:00P	***END OF DAY***			

SURF Student Colloquium: Thursday, August 7, 2014
Parallel Session: Portrait Room, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR:				
9:00A	Chase Brisbois	State University of New York Albany	Probe-Assisted Deterministic Doping	PML/ElecEng
9:20A	Karla Parraga	City University of New York	Electronic Test Equipment Interface with LabVIEW for Charge Based Capacitance Measurement	PML/ElecEng
9:40A	Tim Taylor	Colorado School of Mines	Interfacing a Charge Based Capacitance Measurement Device with Atomic Force Microscopy	PML/ElecEng
10:00A	Jonathan Michelson	State University of New York Binghamton	Scanning Microwave Microscopy: A Promising Technique for 3D-IC Subsurface Metrology	PML/ElecEng
10:20A				
10:40A	***BREAK***			
MODERATOR: ***Joseph Rice, Physical Measurement Laboratory, NIST***				
11:00A	Austin Cummings	Colorado School of Mines	Microscene Grave Detection via Hyperspectral Imaging	PML/Phys
11:20A	Logan Hillberry	Colorado School of Mines	Spectral Uniformity: The HIP Way	PML/Phys
11:40A	Ama Agyapong	Elizabeth City State University	Measuring Three Dimensional Angle of Through-Silicon via Using TSOM Method	PML/Phys
12:00N	Jacob Ward	Arizona State University	Analysis of Fe V and Ni V Wavelength Standards in the Vacuum Ultraviolet	PML/Phys
12:20P	Keeley Townley-Smith	Lamar University (non-SURF)	Hyperfine Structure in Singly Ionized Manganese	PML/Phys
12:40P	***LUNCH***			

SURF Student Colloquium: Thursday, August 7, 2014
Parallel Session: Portrait Room, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR: ***Dan Pierce, Center for Nanoscale Science & Technology, NIST***				
1:30P	Collin Baker	University of the District of Columbia	Advanced Plasma Etching for High-Aspect-Ratio Nanometer Silicon (Si) Trenches	CNST
1:50P	Joey Ashley	Radford University	Modeling Grain Boundaries in Thin Film Photovoltaics	CNST
2:10P	Benjamin Grisafe	State University of New York Albany	Design and Characterization of Phase Shifting Photomasks for I-Line Projection Lithography	CNST
2:30P	Jing Chen	City University of New York	Development of an Efficient, Fiber-Coupled Quantum Dot Single Photon Source	CNST
2:50P	Sergei Wallace	University of Alabama Tuscaloosa	Modeling Laser Pulsed Heat Conduction in Solids for All-Optical Ferromagnetic Resonance Spectroscopy	CNST
3:10P	***BREAK***			
3:20P	Benjamin Pound	Utah State University	Two-Dimensional Electron Gases at the Surface of Potassium Tantalate	CNST
3:40P	Maximiliano Silva-Feaver	Santa Clara University	AFM Applications of Optomechanical Transduction by a Microdisk Resonator	CNST
4:00P				
4:20P				
4:40P				
5:00P	***END OF DAY***			

SURF Student Colloquium: Thursday - August 7, 2014
Parallel Session: Heritage Room, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR: ***Lisa Fronczek, Engineering Laboratory SURF Director, NIST***				
9:00A	Gianluca Capraro	University of Michigan Ann Arbor	Advancing Manufacturing Process Diagnostics and Prognostics by Leveraging Supply Chain Strategies	EL
9:20A	Gregory Krummel	University of Maryland College Park	Machine Learning for Adaptive Robot Coordination	EL
9:40A	Christopher Lawler	University of Maryland College Park	Making the Robot Think Twice: Improvements to an Ontology-Based Agility Framework for Manufacturing Robotics	EL
10:00A	Thomas Oeste	University of Maryland College Park	The Impact of Human-Robot Collaboration	EL
10:20A	Victor Trujillo, Jr.	McLennan Community College	Virtual Fusion: Human Presence in Manufacturing Simulation	EL
10:40A	***BREAK***			
MODERATOR: ***Yuying Gosser, City University of New York***				
11:00A	Rachel Kuprenas	University of South Carolina	An Analysis of the Effects of Simulation Parameters on CFD Aerodynamic Bluff Body Simulations Using Experimental Design Technique	EL
11:20A	Zineb Bouizy	City University of New York	Designing Buildings for Wind Load	EL
11:40A	Andrew Adams	Boise State University	Resilience: Planning for the Future	EL
12:00N	Nathaniel Barrios Fuentes	Interamerican University of Puerto Rico Bayamon	Utilizing ANSI/ASHRAE Standard 37 for Volumetric Airflow Uncertainty	EL
12:20P	Syed Elahi	University of Maryland College Park	A New and Innovative Way to Conduct Uncertainty Analyses on HVAC&R Equipment!	
12:40P	***LUNCH***			

SURF Student Colloquium: Thursday - August 7, 2014
Parallel Session: Heritage Room, Administration Building (101)

TIME	SPEAKER	UNIVERSITY	TITLE	LAB
MODERATOR: ***Yuying Gosser, City University of New York***				
1:30P	David Chu	University of Virginia	Understanding the Additive Manufacturing Digital Thread	EL
1:50P	Andrew Dodd	University of Massachuetts Amherst	Towards Developing Composability in Modeling and Simulation of Additive Manufacturing Processes	EL
2:10P	Nathan Brockett	Pennsylvania State University	Looking Inside the Process of Additive Manufacturing with Ultrasonics	EL
2:30P	Kevin Zeng	University of Virginia	Critical Geometries in Additive Manufacturing	EL
2:50P	Joshua Land	University of Maryland College Park	MakerBot Round Robin Study: Manufacturing Plan Precision	
3:10P	***BREAK***			
3:20P	Calvin Zehnder	Case Western Reserve University	Dynamic Properties of Metals Used in Additive Manufacturing	EL
3:40P	Golnaz Ghouchani	City University of New York	Data Mining Application in Web Services	EL
4:00P	James Ledwell	University of Maryland College Park	Augmented Reality for Smart Manufacturing: A Google Glass Exploratory Project	EL
4:20P	Nasif Sikder	University of Maryland Baltimore County	Semantic Refinement Tool Development	EL
4:40P	Gedaliah Knizhnik	University of Maryland College Park	Semantic Interpretation of Bayesian Inference in a Manufacturing Scenario	EL
5:00P	***END OF DAY***			

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