

2012

SURF STUDENTS BY

ORGANIZATIONAL UNIT

UNIVERSITY	STUDENT	TITLE OF TALK	OU
St. Olaf College	Barkley, Sarice	Testing Shapes and Sizes of the Diamagnetic Lateral Force Calibrator	CNST
Savannah State University	Brooks, Sterling	Catalyst Structure Investigated by In-Situ HRTEM Measurement During CNT Growth	CNST
University of Michigan	Collins, Sean	Chemical Heterogeneity of Wildfire Aerosol Emissions: Implications for Climate Change	CNST
Virginia Polytechnic Institute and state University	Epstein, Stephen	Cavity Optomechanical Sensors for Atomic Force Microscopy	CNST
Worcester Polytechnic Institute	Gianfrancesco, Anthony	Thin Film Deposition of Quantum Dots (Nanoscale Characterization of Photovoltaic Devices)	CNST
State University of New York Binghamton	Guss, Jason	Spin Current Polarization in Amorphous CoFeB Measured via the Spin-Wave Doppler-Effect	CNST
State University of New York Albany	Janiszewski, Brian	Chemical Surface Patterning	CNST
University of Nebraska Lincoln	Lintel, Anton	Domain Size Dependence of Successive Alternating Layers of Co and Pd	CNST
Purdue University	Savikhin, Victoria	Assembly and Measurement of Quadruplex DNA Nanomaterials	CNST
Colorado School of Mines	Thurston, Bryce	Electronic Transport Properties of the Metal Organic Framework $\text{Cu}_3(\text{BTC}_2) \cdot \text{TCNQ}$	CNST
University of Delaware	D'Alessio, Anna	Are You Being Greenwashed	EL
University of Maryland College Park	Connolly, Kathryn	Durability of Backsheet Polymers Used in Photovoltaic Applications	EL
Millersville University of Pennsylvania	Consylman, Ryan	A Case Study for Sustainability Modeling and Optimization	EL
University of Maryland College Park	Dorson, Ryan	Reasoning with PriKL	EL
Gonzaga University Washington State	Engel, Samantha	Rheological Properties of Sustainable Ternary Binders	EL
University of Maryland College Park	Faenza, Nicholas	Reduced Flammability of Polyurethane Foam Using a Layer-by-Layer Assembly with Natural Materials	EL
University of Maryland College Park	Gaume, Patrick	Effects of Key Environmental Factors on Degradation of Polymeric Films Used in Protective Glazing Systems	EL
University of Puerto Rico	Gil Acevedo, Jennifer	Durability Study of Polymer Nanocomposites	EL
State University of New York Stony Brook	Ging, James	Fate of Carbon Nanotubes in Polymer Nanocomposites Exposed to UV Radiation	EL
Loyola University Maryland	Gorbaty, Andrew	Web Based Applications for Machine Tools	EL
Reed College	Gould, Max	Verification of Computational Fluid Dynamics Program for Fire Modeling	EL
Worcester Polytechnic Institute	Barbara Hall	CFAST and the Incorporation of Uncertainty	EL

UNIVERSITY	STUDENT	TITLE OF TALK	OU
University of Maryland College Park	Hamins-Puertolas, Adrian	Measuring Inadequate Interoperability in the Manufacturing Industry	EL
University of Virginia	Harinder, Arvind	Modeling Material Information Flow Through the Product Lifecycle	EL
State University of New York Binghamton	Hebenstreit, Keith	Measurement Systems for Additive Manufacturing Processes	EL
University of Maryland College Park	Hemley, Scott	Computational Fluid Dynamics Simulations for Building Aerodynamics	EL
Alabama A&M University	Hines, Shannon	Fire Resistant Foam	EL
Arizona State University	Jaber, Abbas	Parsing COLLADA: A Robust Method for Inputting Geometry Into FDS	EL
Arizona State University	Keberle, Katelyn	Environmentally-Friendly Flame Retardant Coating for Polyurethane Foam	EL
State University of New York Binghamton	Kesten, Evan	A Low-Cost 3D Safety System for Robot Applications	EL
New College of Florida	Lang, Sophie	Bench Scale Measurements of Toxic Effluents in Fire Smoke	EL
University of Maryland College Park	Li, Kevin	Comparison of FDS Predictions with Gas Velocity Measurement in the Exhaust Duct of a Stationary Source	EL
University of Maryland College Park	Liang, Lipeng	Dynamic Update of MySQL Database in Kitting	EL
Texas Southern University	Mbonu, Ray	Fire Proof Foams	EL
Virginia State University	McNair, Major	Android Defense Science	EL
Worcester Polytechnic Institute	Nelson, Andrew	Modeling Upholstered Furniture in Fire Environments with CFAST	EL
University of Maryland Baltimore County	Newcomer, Matthew	Performance Assessments of Tactical Handheld Android Applications for Warfighters	EL
Whitworth University	Nguyen, Minh Trang	Testing the Performance of 6LoWPAN-Based Wireless Sensor Network	EL
University of Puerto Rico	Nieves-Nevárez, Mairim	Wireless Sensor Networks for Machine Monitoring	EL
State University of New York Binghamton	Presser, Brian	Benefits and Costs of Energy Efficiency in New Buildings	EL
University of Pennsylvania	Reidy, Sean	A Picturesque View of Sustainable Manufacturing Standards	EL
Brigham Young University	Richardson, David	Multi-Split HVAC Unit Testing and Analysis	EL
University of Puerto Rico	Rivera-Cotty, Norman	Instrumentation of Geothermal Heat Pump Test System	EL
Loyola University Maryland	Rose, Allison	Calibrating Laser Range Scanners for Robot Safety	EL
University of Texas Dallas	Rosete, André	Ghosts in the House	EL
University of Maryland College Park	Sanker, Erica	An Analytical Finite element Model of Micro- and Nanoscale Electrostatic Beam Resonators	EL

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Brown University	Shear, Jonathan	Modeling the Temperature of Panels Exposed to the Outdoors	EL
University of North Carolina Charlotte	Savage, Luke	Diamond Turning Machine Characterization	EL
Arizona State University	Stehlik, Daniel	Beginning Standardization of Condition Monitoring Tests for Cables in Nuclear Power Plants	EL
University of Maryland College Park	Valivullah, Lina	Manufacturing Specific Process Information Models for Sustainability	EL
State University of New York Binghamton	Watkins, Megan	Sustainability Analysis of a Die Casting Process	EL
Virginia Polytechnic Institute and State University	Webster, Kelly	How to Feed and Water your Dishwasher	EL
University of Maryland College Park	Wiess, Emily	Building Evacuation of People with Mobility Impairments	EL
DePauw University	Baker, Catherine	Calculating Graph Toughness	ITL
College of William and Mary	Blum, Matthew	It's a Secret to Nobody: Using a Public Source of Randomness for Cryptography and Zero-Knowledge Protocols	ITL
Rochester Institute of Technology	Clanton, Brian	Exploring Real-Time Web-Based 3D Mathematical function Rendering and Manipulation	ITL
Stevenson University	Giauque, Kristin	A Vision of the Future	ITL
Hood College	Haines, Andrea	Determining Important Control Parameters of a Genetic Algorithm	ITL
University of Maryland College Park	Jacobs, Jeffrey	Parallel LDPC Error Correction for Quantum Key Distribution on a GPU	ITL
DePauw University	Keller, Zachary	Modeling the Spread of Infection	ITL
Millersville University of Pennsylvania	Kimmel, Edward	Crypto-Graphics: Visual Applications of the NIST Randomness Beacon	ITL
Georgetown University	Lee, Julian	Faithful to the Original? The Impact of Latent Fingerprint Enhancement	ITL
Westminster College	MacKenzie, Connor	Simplifications and Generalizations of Generating Functions for Classical Orthogonal Polynomials with Definite Integrals	ITL
University of South Alabama	Moore, Adam	Enabling the Extraction of Publications Metadata	ITL
Carnegie Mellon University	Mouli, Divya	Hands Off!: Using Gesture Recognition to Manipulate 3D Visualizations	ITL
Columbia University	Orthwein, John	Techniques in Signal Processing for Chirped-Pulse Broadband Trace Gas Sensor	ITL
University of Puerto Rico	Perez Cruz, Luuis	Monitoring and Analyzing the Deployment of Resource public Key Infrastructure (RPKI) Within the Internet	ITL
University of Maryland Baltimore County	Rayfield, Lael	Simple Analysis of Biometric Matchers	ITL
University of Puerto Rico	Rivera Santiago, Luis	Text Lines Segmentation Performance Assessment Tool	ITL

UNIVERSITY	STUDENT	TITLE OF TALK	OU
St. Mary's College of Maryland	Roca, Alexander	Detecting Malware on Smart Phones	ITL
University of Puerto Rico	Rosado Rosado, Angel	Testing and Traceability of Entropy Sources for Random Bit Generation	ITL
Hampton University	Scott, Charles	Diagraph Method in Detecting Rule Faults for Attribute Based Access Control Policies	ITL
University of Maryland College Park	Siegel, Jacob	The Kinect: A Cheap and Accurate Depth Measurement Tool	ITL
University of Maryland College Park	Sileo, Marissa	Biomedical Image Analysis	ITL
Hampton University	Smith, Courtney	Video Stream Face Detection	ITL
Towson University	Smith, Michael	Windows Phone Malware Detection	ITL
University of Maryland Baltimore County	Turner, Jeffrey	Video Interpolation with the FFMPEG VidAT Tool	ITL
University of Maryland College Park	Villarrubia, Mark	Analyzing Microblog Search Through an Ablation Study of TF-IDF	ITL
University of California Berkeley	Wu, Jason	Optimal Broadcast and Spread of Information in a Network with Limited Resources	ITL
University of Colorado Boulder	Zirkelbach, Stetson	Exploration of Big Data Technologies to Scale Up Cancer Prognosis System	ITL
Oklahoma State University	Artmayer, Danielle	Empirical Calibration Curves for Concrete	MML/NCNR ChemBio
University of Maryland College Park	Boger, Shir	Building Consistent Nanomaterial Ontologies in a Federated Environment	MML/NCNR ChemBio
Virginia Wesleyan College	Boyce, Matthew	Investigation of Sample Matrix Effects Using Spinning Sampling Chamber Laser Ablation ICPMS	MML/NCNR ChemBio
Gonzaga University Washington State	Brown, Taylor	An Investigation into the Enhancement of Vesicle-Based Glycan Arrays	MML/NCNR ChemBio
Brown University	Cohen, Joshua	A Discussion of the Efficacy of the Coulter Principle for Counting Micron-Scale Particles and Protein Aggregates in Comparison to Other Currents	MML/NCNR ChemBio
University of Michigan	Collins, Sean	Chemical Heterogeneity of Wildfire Aerosol Emissions: Implications for Climate Change	MML/NCNR ChemBio
Mount Saint Mary's University	Dockery, Lance	Analysis of CO ₂ Loss in Gas Cylinders and changing Concentrations Over Time in NIST Gas SRMs	MML/NCNR ChemBio
Montgomery College	Hafner, Katie	Enhancing the NIST Chemistry Web Book with Optimized 3D Structures – Part 2	MML/NCNR ChemBio
North Georgia College and State University	Jones, Matthew	Measurement of Material Thermal and Chemical Characteristics with the Laser-Driven Thermal Reactor	MML/NCNR ChemBio
North Georgia College and State University	Leman, Deborah	Determination of Polymer/Fullerene Bilayer Miscibility	MML/NCNR ChemBio
University of Maryland Baltimore County	Luu, Peter	Construction and Testing of the Next Generation Ozone Standard reference Photometer	MML/NCNR ChemBio

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Augsburg College	Ly, Nathaniel	Uncertainty in Live Cell Fluorescence Intensity Measurements Estimated With a Mean Squared Displacement Analysis	MML/NCNR ChemBio
Hood College	Meyer, Rachel	Synthesis of Thiolated Tether Compound to Improve the Properties of tBLM Usd in the Study of Integral Membrane Proteins	MML/NCNR ChemBio
University of Maryland College Park	Miller, Stephanie	Expression, Crystallization, and Holographic Analysis of the Protein Rubredoxin	MML/NCNR ChemBio
University of Maryland Baltimore County	Obadina, Mofiyinfoluwa	Measuring Electrochemically-Induced Oxidative Damage in DNA	MML/NCNR ChemBio
Arizona State University	Ness, Stuart	Enhancing the NIST Chemistry Web Book with Optimized 3D Structures – Part 1	MML/NCNR ChemBio
Columbia University	Newton, Ashley	Transfer Efficiency of Explosive and Narcotic Residue from Bytac®	MML/NCNR ChemBio
Alabama A & M University	Ragland, Tamika	Measurements of Vitamin A in Northern Fur Seals	MML/NCNR ChemBio
Weber State University	Smith, Nicholas	Glycoanalysis Using Universal Proteolysis and Mass spectrometry: Showing Off the Sweet Side of Proteins	MML/NCNR ChemBio
Carnegie Mellon University	Spicer, Graham	Fabrication of Nanopores in Anodized Aluminum Oxide	MML/NCNR ChemBio
University of Maryland College Park	Wu, Jiemin	Developing Analytical Tools for the Characterization of Protein Biomarkers Using Antibodies and Superparamagnetic Substrates	MML/NCNR ChemBio
California State University Fresno	Xiong, Pahoua	Post-Column Counter-Gradients for Better LC/MS Analysis	MML/NCNR ChemBio
University of Maryland College Park	Arnold-Medabalimi, Nicholas	DNA Self-Assembly on 1-D and 2-D Carbon Lattices	MML/NCNR MML/NCNR MatSci
University of Maryland College Park	Ashley, Elizabeth	Dimensional Characterization of Si Nanogratings Formed by PS/PMMA Directed Self Assembly	MML/NCNR MML/NCNR MatSci
University of Maryland College Park	Bhargava, Pavan	Correcting Substrate Warp for X-Ray Reflectometry	MML/NCNR MML/NCNR MatSci
University of Maryland College Park	Bhati, Vikas	Neutron Diffraction Studies of Reduced Perovskite Iron Oxides	MML/NCNR MML/NCNR MatSci
Worcester Polytechnic Institute	Cannon, Bernadette	Studying Phase Transformations in Al/Ni Reactive Multilayers Using Nanocalorimetry	MML/NCNR MML/NCNR MatSci
Georgia Institute of Technology	Carlson, Max	Data Visualization for Analysis of the NCNR Cold Source Operation	MML/NCNR MML/NCNR MatSci
Bridgewater College	Cline, Matthew	Structural Studies of Important Industrial Gases Adsorbed in Zeolites	MML/NCNR MML/NCNR MatSci

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St. Mary's College of Maryland	Carneiro, Lucas	Effects of Film Processing Parameters on Organic Photovoltaic Device Performance	MML/NCNR MML/NCNR MatSci
University of Maryland College Park	Correa, Luis	High Resolution Displacement Metrology for Nanomechanical Properties	MML/NCNR MML/NCNR MatSci
Carnegie Mellon University	Cramer, Madeline	Molecular Dynamics Simulations of Aluminum Nanoparticles	MML/NCNR MML/NCNR MatSci
Virginia Wesleyan College	Driscoll, Darren	Developing a Library of Selenium Nanoparticles Based on Charge, Size and Stability	MML/NCNR MML/NCNR MatSci
University of Puerto Rico	Garcia Torres, Desirée	Electrocatalytic Hydrogen Oxidation and Evolution at Pt Surfaces in Alkaline Solution	MML/NCNR MML/NCNR MatSci
State University of New York Albany	Garczynski, Pascal	Fluidity at Oil-Water Interfaces	MML/NCNR MML/NCNR MatSci
American University	Ghias, Elizabeth	Synthesis of PEG Compounds for CB2 Structure Characterization with Neutron Scattering and Reflectivity Techniques	MML/NCNR MML/NCNR MatSci
University of Maryland College Park	Goodley, Addison	Cloning, Expression, and Purification of TRPML-1	MML/NCNR MML/NCNR MatSci
University of New Haven	Gorka, Danielle	Aging Effects on the Enzymatic Activity of functionalized Gold Nanoparticles	MML/NCNR MML/NCNR MatSci
University of the Sciences Philadelphia	Huon, Amanda	Characterization of Carbon Nanomaterials	MML/NCNR MML/NCNR MatSci
University of Delaware	Johnson, Jacqueline	The Effect of Ambient Conditions on Solution-Cast Organic Photovoltaics	MML/NCNR MML/NCNR MatSci
University of Maryland College Park	Jones, Benjamin	Effects of Interfacial Roughness in Small Angle Neutron Scattering from Multiphase Polymers	MML/NCNR MML/NCNR MatSci
University of Maryland College Park	Kim, Il Kyoon	Phase Transition Measurement of Lipids by Nanocalorimetry	MML/NCNR MML/NCNR MatSci
University of California San Diego	Krayer, Lisa	Structural Studies of Multiferroic Thin Films	MML/NCNR MML/NCNR MatSci
Prairie View A & M University	Le, Anh-Tuan	Novel Capillary Viscometry Protein Therapeutic Formulation	MML/NCNR MML/NCNR MatSci
Alabama A & M University	Lewis, Justin	Molecular Modeling Tools for Advanced Materials	MML/NCNR MML/NCNR MatSci
University of South Carolina	Matson, Jillian	Investigating ECM Biomolecule Interactions	MML/NCNR MML/NCNR MatSci

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University of Maryland College Park	Menta, Karthikeya	Quantification of Human Bone Marrow Stromal Cell Shape Dynamics in Collagen Three-Dimensional Scaffolds	MML/NCNR MML/NCNR MatSci
University of New Hampshire	Moser, Newell	Designing and Constructing Steel Cruciform Specimens for a Biaxial Tensile Machine	MML/NCNR MML/NCNR MatSci
Texas Southern University	North III, Richard	Characterizing the Safety and Efficacy of Fluoride Dental Varnish with Applications for Standards Development and Clinical Relevance	MML/NCNR MML/NCNR MatSci
University of Puerto Rico	Pinto-Pacheco, Brismar	The Advantage of Using TiO ₂ in Improving the Performance of Dental Resins	MML/NCNR MML/NCNR MatSci
University of Puerto Rico	Quiñones Meléndez, Estefania	Hydration Dynamics of Thin Nafion Films Studied with Polarization Modulation Infrared Reflection Absorption Spectroscopy (PM-IRRAS)	MML/NCNR MML/NCNR MatSci
State University of New York Buffalo	Reele, Michelle	Characterizing the Structural and Rheological Properties of Triblock Copolymer Solutions	MML/NCNR MML/NCNR MatSci
University of Maryland Baltimore County	Richardson, Donald	Assignment of Wyckoff Positions for Entries in the NIST Metals Database	MML/NCNR MML/NCNR MatSci
University of Maryland College Park	Steiner, Jake	Phase Equilibria in Co-Al-W Ternary System	MML/NCNR MML/NCNR MatSci
University of Oklahoma	Sabeghi, Maryam	Solidification of Nanoparticles at High Rate	MML/NCNR MML/NCNR MatSci
University of Maryland Baltimore County	Smith, Nathan	Optimization and Modeling of Metal-Oxide-Semiconductor (MOS) Photoelectrochemical Cells	MML/NCNR MML/NCNR MatSci
University of Maryland College Park	Syed, Komal	Estimation of the Uncertainty in Orientation Distribution Function Using Monte Carlo Technique	MML/NCNR MML/NCNR MatSci
Millersville University of Pennsylvania	Treible, Wayne	Implementing and Optimizing Calculations of In-Plane Scattering Off of Thin Films	MML/NCNR MML/NCNR MatSci
Southern University	White, John	Fabrication, Optimization, and Analysis of PLGA Nanoparticle for Potential Advancing in Stem Cell Therapy	MML/NCNR MML/NCNR MatSci
University of Maryland College Park	Widstrom, Matthew	3D Geometry Photovoltaic Devices	MML/NCNR MML/NCNR MatSci
University of Maryland College Park	Yee, Alex	Dataflow: Web-Based Data Reduction	MML/NCNR MML/NCNR MatSci
University of New Haven	Young, Allision	Nanofiltration Membranes and Their Swelling Properties by Use of XR and QCM	MML/NCNR MML/NCNR MatSci

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University of Maryland College Park	Abbaszadeh, Yasamin	Characterization of the Dose-Rate Effect for Alanine Ionizing-Radiation Dosimetry	PML
Whitman College	Abrams, Nathan	The Effects of Helium Upscattering and Neutron Absorption of the Neutron Lifetime	PML
Prairie View A & M University	Amini, Shahin	Effect of Interlayer in Organic Tandem Solar Cell	PML
George Washington University	Bagchi, Shelly	Monitoring the Power Grid	PML
Rochester Institute of Technology	Beaumariage, Jonathan	Finding Numerical solutions of the Fourier Modal Method to Measure two Dimensional Gratings	PML
Brigham Young University	Bendall, Lisa	Shape Evaluation of Nanoparticles Using the TSOM Method	PML
Wake Forest University	Brigeman, Alyssa	Exploring Organic Magnetoresistance in Spintronic Devices	PML
State University of New York Albany	Briggs, Michael	Space Charge Limited Current Spectroscopy in Organic Single Crystal Semiconductors	PML
Louisiana State University	Brignac, Chase	Quantum Metrology with Nonclassical Light	PML
State University of New York Binghamton	Cao, Lei	Massively Parallel TDDDB Test System	PML
Miami University of Ohio	Denton, Alexis	Validation Measurements for Optical Remote Sensing of Greenhouse Gases	PML
University of Maryland College Park	Drozdov, Serghei	Characterizing the Impact of a Single Interface Layer Defect in CMOS Devices	PML
State University of New York Stony Brook	Hassinger, Julian	Nanoscale Imaging Using Spectral Domain Optical Coherence Tomography	PML
Rochester Institute of Technology	Heberle, Dylan	Tunability of Photon Entanglement	PML
Goucher College	Irwin, Julian	Tunnel Junction Measurements of Spin Currents	PML
Rochester Institute of Technology	Kahn, Joshua	Neutron Imaging of Chemical Phase Transitions in Alkaline Batteries	PML
University of Texas Dallas	Kelso, Meagan	Quick Read Codes Made by Nanoindentation	PML
State University of New York Binghamton	Kohler, Timothy	Charge-Based Capacitance Measurements and SCM on a Chip	PML
Arizona State University	Lajevardi-Kosh, Arad	Characterization and Preparation of Actin Surfaces and Tethered Bilayer Membranes	PML
State University of New York Binghamton	Lake, Ryan	Investigation of DNA Transport in Nanofluidic Slits	PML
Gustavus Adolphus College	Legatt, Jenna	Shine On Me	PML
George Washington University	Litchfield, Caroline	Calibrating Calibrators	PML
State University of New York Albany	Lydecker IV, Leigh	Characterization of SAMs on Cobalt and Gold	PML

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University of Puerto Rico	Marcano Estévez, Joseph	Nano-Injector Based Direct Writ Metal Deposition	PML
State University of New York Binghamton	Morgan, Adam	Through silicon Via (TSV) Reliability Monitoring System	PML
Carnegie Mellon University	Mullins, Tom	Optimizing Photonic Crystals Using Computer Simulation	PML
Tulane University	Ortmann Jr., John	Frequency Stabilization of a Continuous wave Dye Laser for Use as a Quantum Memory	PML
Appalachian State University	Pruett, Zachary	The Brightness of the Moon: Lunar Spectral Irradiance	PML
St. Mary's College of Maryland	Raico III, Pasquale	Using Arbitrary Waveform Controlled Lasers and Cavity ring-Down spectroscopy to Determine Greenhouse Gas Concentrations	PML
Tulane University	Scott, Elizabeth	Modeling Helium 3 Scintillation with MCNPX	PML
American University	Tweardy, Matthew	Creating Thermometers of the Future: Imaging Temperature Gradients Using Ultrasonic Transducers	PML
Appalachian State University	Villanova, John	Analysis of Toolmark Topographies from Ten Consecutively Manufactured Chisels	PML
American University	Weinstein, Brian	Temperature Monitoring and Control in Laser Cooling Laboratories	PML
Colorado School of Mines	Whalen, Joseph	Lunar Spectral Irradiance: Calibration of the Moon	PML
Texas A & M University	Zhou, Maxwell	Controlled Production of Highly Charged Ions in Rydberg States	PML
Andrews University	Zirkle, Thomas	Magnetic Field and Position Probe	PML