**CINT 2016B Accepted Proposals**

*A thin film approach to topology tuning in heavy-fermion materials*; Zhiqi Liu, Los Alamos National Laboratory: Quanxi Jia

*Al\AlOx SETs for charge sensingand spin readout of electrons on helium (eons);* Rupert Lewis, Sandia National Laboratories: Tom Harris

*Atomic-precision bipolar devices*; Josh Ballard, Zyvex Labs, Inc: John Nogan

*Atomic-precision single-donor atoms for a Si quantum computer*; Josh Ballard, Zyvex Labs, Inc: Brian Swartzentruber

*Atomic-precision tunnel junctions for Si quantum computing;* Richard Silver, NIST: John Nogan

*Bright defects in zinc oxide nanowires for quantum photonic applications;* Xuedan Ma, Argonne National Laboratory: Jinkyoung Yoo

*Cesium adsorption and desorption on clay minerals in the presence of natural organic matter;* Hongkyu Yoon, Sandia National Laboratories: Katie Jungjohann

*Composite photonic materials: From quantum photon generation to efficient coherent multi-photon light emission;* Oleksiy Roslyak, Fordham University: Han Htoon

*Convergent study of SiGe epitaxy for Si quantum computing;* Chris Richardson, University of Maryland: John Reno

*Magnetic Targeting of Nanoformulations for Atrial Fibrillation;* Kennet Dormer, Liberty University: Dale Huber

*Coupling single nanocrystals to metallic antennas;* Stephan Goetzinger, Max Planck Institute for the Science of Light: Jennifer Hollingsworth

*Covalent Functionalization of Gold Nanorods and Transition Metal Layered Chalcogenides (TMD) Using the CINT Microfluidic Discovery Platform (MDP);* Rich Vaia Air Force Research Laboratory (AFRL): Dale Huber

*Degradation Mechanisms Specific to Nanoscale Li-Ion Electrodes;* Subrahmanyam Goriparti, Sandia National Laboratories: Katie Jungjohann

*Design and Evaluation of Nano-Composite Inductors for Extreme Power Density Converters;* Robert Pilawa, University of Illinois at Urbana Champaign: Dale Huber

*Developing a New Family of Wurtzite CuZn2ASe4 (A=Al, Ga, In) Nanocrystals for Solar Cell Application;* Soubantika Palchoudhury, University of Tennessee: Katie Jungjohann

*Digital Electronics at the Atomic Limit;* Shashank Misra, Sandia National Laboratories: Mike Lilly

*Discovery of wide band gap bulk insulating topological insulators;* Madhab Neupane, University of Central Florida: Jian-Xin Zhu

*Disrupting the coffee-ring deposition effect via externally induced Marangoni flows for precise placement of nanowires;* Ron Salesky, Vista Therapeutics: John Nogan

*Doping-Induced Tuning of the Thermochromic Phase Transition in Atomic Layer Deposited VO2;* Virginia Wheeler, U.S. Naval Research Laboratory: Katie Jungjohann

*Ductile to Brittle Transition of Silicon at the Nanoscale;* William Gerberich, University of Minnesota: Nate Mara

*Effects of Electrical Fields on Ionic Polymeric Membranes*; Dvora Perahia, Clemson University: Gary Grest

*Electronic Properties of Benzyne-functionalized Graphene and Graphite;* Liliya Frolova, New Mexico Institute of Mining and Technology: Sergei Tretiak

*Elucidating the electronic bandstructure of layered 2D materials using photoelectron spectroscopy*; Aditya Mohite, Los Alamos National Laboratory: Taisuke Ohta

*Examination of Grain Boundary Solute Segregation in Nanocrystalline Binary Alloys as a Function of Grain Boundary Character: Toward Improved Thermal Stability;* Christopher Barr, Sandia National Laboratories: Katie Jungjohann

*Exploring highly conducting oxides by combining high-pressure and thin-film techniques;* Xujie Lu, Los Alamos National Laboratory: Aiping Chen

*Fabrication and Characterization of III Nitride Superluminescent Diodes;* Daniel Feezell, University of New Mexico: John Nogan

*First-principles statistical mechanics of ionic alloys;* Anton Van der Ven, University of California at Santa Barbara: Normand Modine

*Growth of Ge/Si core/shell nanowires for quantum bits and Majorana fermions;* Sergey Frolova, University of Pittsburgh: Jinkyoung Yoo

*High-efficiency Mie-resonant nanostructures for visible frequencies;* Isabelle Staude, Friedrich-Schiller University: Igal Brener

*High-power and single-mode quantum cascade lasers for terahertz sensing;* Sushil Kumar, Lehigh University: John Reno

*Implementation of Terahertz Devices by Integrating Metamaterials and 2D materials;* Xin Zhang, Boston University: Hou-Tong Chen

*In Situ SAXS on Semi-Crystalline Polymers under Tensile Deformation;* Cynthia Welch, Los Alamos National Laboratory: Millie Firestone

*In situ TEM Nanomechanics of 3D Printed Nanotwinned Metallic Micro/Nanostructures Fabricated via Localized Electrodeposition;* Majid Minary, University of Texas at Dallas: Khalid Hattar

*In-situ Electrochemical TEM on All Solid State Batteries;* Albert Alec Talin, Sandia National Laboratories: Katie Jungjohann

*In-situ Heating TEM Study of Metal-alloyed Contact Formation in III-V Nano-channels;* Shadi Dayeh, University of California at San Diego: Katie Jungjohann

*In-situ TEM Analysis of Sodiation Reactions in Sn and Sn Alloys;* David Mitlin, Clarkson University: Katie Jungjohann

*In-situ TEM Characterization of Solid Electrolyte in 3D Lithium Ion Nanobattery;* Jane Chang, University of California at Los Angeles: Katie Jungjohann

*Interface study on heterojunctions formed by the transfer-printed semiconductor nanomembrane;* Jung Hun Seo, University at Buffalo: Jinkyoung Yoo

*Interplay of strain and oxygen vacancies on functional properties in lanthanide cobaltate double perovskite thin films;* Chonglin Chen, The University of Texas at San Antonio: Quanxi Jia

*Ion Beam Analysis of Highly Mismatched Alloy Films;* Rachel Goldman, University of Michigan: Yongqiang Wang

*Ion Binding and Transport in Nanoscopic Pathways;* Susan Rempe, Sandia National Laboratories: Mark Stevens

*Light Funneling through Ultra-subwavelength Channels for Broadband Detection*; Ganapathi Subramania, Sandia National Laboratories: Dale Huber

*Lithography for Atomic Physics Applications in Space;* Mayer Landau, Air Force Research Laboratory (AFRL): John Nogan

*Low-dimensional electron/hole systems in SiGe heterostructures;* Tzu-Ming Lu, Sandia National Laboratories: Mike Lilly

*Mechanical and radiation response of nanolayered and nanotwinned metals;* Xinghang Zhang, Purdue University: Nate Mara

*Mechanical Test on Additive Manufacture Parts Utilizing Nanoindention*; Joseph Torres, Los Alamos National Laboratory: Nate Mara

*Mesoscale LASER Sample Milling;* Ross McDonald, Los Alamos National Laboratory: Quinn McCulloch

*Metamaterial-Based Infrared Modulators;* Jason Valentine, Vanderbilt University: Igal Brener

*Metasurface Enabled Illusion Optics;* Jensen Li, University of Birmingham: Hou-Tong Chen

*Micromachined Thermal Platforms for Nanoscale Thermoelectrics and Spintronics;* Barry Zink, University of Denver: John Nogan

*Modeling of conducting conjugated polymers. Part 2: Modeling electronic structure and its coupling to molecular dynamics;* Andriy Zhugayevych, Skolkovo Institute of Science and Technology: Sergei Tretiak

*Molecular shuttles and dynamic nanostructures;* Henry Hess, Columbia University: George Bachand

*Morphological Effects on the Mechanical Properties of Bicontinuous Metal Composites;* Ian McCue, Texas A&M University: Nate Mara

*Multicolor IR Photodetectors using Plasmonic Interactions;* Mayer Landau, Air Force Research Laboratory (AFRL): Doug Pete

*Nanocomposite Heteroepitaxial Films with Enhanced Magnetoelectric Coupling;* Judith Driscoll, University of Cambridge: Quanxi Jia

*Nanopatterning of gas-bubble superlattice in bcc metals*; Cheng Sun Idaho National Laboratory: Yongqiang Wang

*Nanoscale generation of terahertz radiation;* Mark Hagmann, NewPath Research L.L.C.: Anatoly Efimov

*Nanoscale phenomena in two-dimensional electron gases at extreme magnetic fields;* Denis Karaiskaj, University of South Florida: John Reno

Nanoscale Structure in Low Miscibility, Narrow Band Gap Semiconductor Alloys; Joanna Millunchick, University of Michigan: Normand Modine

Nanoscale thermoelectric device based on 2D-layered materials;Chiyui Ahn, The University of Texas at San Antonio: Tom Harris

*Nanostructured Alloys and Grain Boundary Structure in Radiation Environments;* Mitra Taheri, Drexel University: Khalid Hattar

*Nanostructured Kondo Topological Insulators as Highly Efficient Thermoelectric Materials;* Julio Martinez, New Mexico State University: Brian Swartzentruber

*Non-Classical Photon Emission from Cooper Pairs;* Michael Gehl, Sandia National Laboratory: Willie Luk

*Nonlinear Conductance of Quantum Point Contacts Due to Phonon-Controlled Disorder;* Jonathan Bird, University at Buffalo: John Reno

*Novel magneto-transport phenomena in two-dimensional electron systems via hybridized electron-photon modes enabled by metamaterials;* Chun-Chieh Chang, Los Alamos National Laboratory: Hou-Tong Chen

*Novel Metal-Oxide Nanocomposites in Epitaxial Thin Film Form;* Haiyan Wang, Purdue University: Hou-Tong Chen

*Observation of Nucleation and Growth Dynamics of Condensed Droplets on Nanostructured Superhy hobic Surfaces;* Ronggui Yang, University of Colorado at Boulder: Tom Harris

*Observing temperature effects on nanobattery anode degradation;* Zoey Warecki, University of Maryland College Park: Katie Jungjohann

*Optoelectronic properties of 0D-2D heterostructures;* Anupama Kaul, University of Texas at El Paso: Han Htoon

*Photon sources based on spontaneous parametric down-conversion in integrated periodic nanostructures;* Frank Setzpfandt, Friedrich-Schiller University: Igal Brener

*Physics of electrostatic discharge;* Ezra Bussmann, Sandia Laboratories: Brian Swartzentruber

*Poly-crystalline Material Characterization;* Sadasivan Shankar, Harvard University: Normand Modine

*Preparation of Wafers for Solar Composition Analysis;* Roger Wiens, Los Alamos National Laboratory: John Nogan

*Probing the Structure-Property Relationship of Mixed Polymer Brushes;* Chester Simocko, San Jose State University: Dale Huber

*Quantification of Thermal Instability within Commercial Lithium-Ion Battery Components;* Heather Barkholtz, Sandia National Laboratory: Sergei Ivanov

*Quantum Cascade Laser for Elevated Temperatures;* Lutfi Ozyuzer, Izmir Institute of Technology: John Reno

*Radiation response in nanocrystalline spinels;* Juan Wen, Lanzhou University: Yongqiang Wang

*Real-time in-line magnetic metrology for magnetic nanoparticle synthesis;* Thomas Crawford, University of South Carolina: Dale Huber

*Rigorous Measurement Scheme for Sizing Magnetic Nanoparticles;* Maarij Syed Rose-Hulman, Institute of Technology: Dale Huber

*SAXS Characterization of Pluronic Block Copolymers/Oil/Water;* Reza Foudazi, New Mexico State University: Millie Firestone

*Secure Timing Authentication Via Silicon Nanophotonics Based Quantum Correlations;* Junji Urayama, Sandia National Laboratories: Ryan Camacho

*SEI formation and growth characteristics on Sn thin films;* James Browning, Oak Ridge National Laboratory: Jon Kevin Baldwin

*Single Quantum Emitters in Atomically Thin Materials;* Ajit Srivastava, Emory University: Han Htoon

*Study of Resonant Light Scattering By Artificial Nanostructures;* Sang-Yeon Cho, New Mexico State University: Igal Brener

*Studying ultrafast non-equilibrium cooper pairs in resonant plasmonic nanoresonators on superconductors;* Jiangfeng Zhou, University of South Florida: Hou-Tong Chen

*Superconducting Nuclear Recoil Sensor for Directional Dark Matter Detection;* Markus Hehlen, Los Alamos National Laboratory: John Nogan

*Switchable Terahertz Metasurfaces; Daniel* Mittleman, Brown University: Hou-Tong Chen

*Synthesis of SiO2 coated Cu Nanoparticles for use as SERS probes;* Gary Rayson, New Mexico State University: John Nogan

*Terahertz Quantum Cascade Lasers for Security and Military Applications;* Qing Hu, Massachusetts Institute of Technology: John Reno

*The Nanoscience of III-nitride Heterointerfaces;* Jonathan Wierer, Lehigh University: Igal Brener

*Theoretical study for topological superconducting material in mirror symmetry based nano devices;* Hongchul Choi, Los Alamos National Laboratory: Jian-XinZhu

*Theoretical understanding of structural stability and multiferroic property of Bi3Fe2Mn2O10 supercell;* Haiyan Wang, Purdue University: Jian-Xin Zhu

*Thermoelectric effect in S/F hybrid nanostructures;* Meenakshi Singh, Colorado School of Mines: Mike Lilly

*THz Coherent Absorption and Polarization Control Using Chiral Metamaterials;* Zhimin Shi, University of South Florida: Hou-Tong Chen

*THz/IR QCL frequency combs for threat detection;* Qing Hu, Massachusetts Institute of Technology: John Reno

*Time-resolved Measurements of Defect States and Transport in Type II Superlattices;* Sanjay Krishna, University of New Mexico: Rohit Prasankumar

*Toward Tunable Functionalities Using Epitaxial Nanoscaffolding Films;* Quanxi Jia, University of Buffalo: Aiping Chen

*Understanding Si-Decorated Nanoporous-Carbon Anodes for High-Performance Li-Ion Energy Storage;* Katharine Harrison, Sandia National Laboratories: Katie Jungjohann

*Understanding The Role of Dose Rate and Temperature on the Phase Stability of Ni based alloys;* Osman Anderoglu, University of New Mexico: Khalid Hattar

*Understanding two-level system losses and the proximity effect using superconducting resonators;* Rupert Lewis, Sandia National Laboratories: Tom Harris

*Unlocking Nanoscale Charge Transport Dynamics in Thin Films using Multiple Integrated Tips Device;* Kwame Amponsah, Xallent LLC: John Nogan

*Unraveling novel electronic states at the interface of Dirac materials;* Elbert Chia, Nanyang Technological University: Jian-Xin Zhu

*Vibrationally mediated exciton spin interconversion processes;* John Grey, University of New Mexico: Rohit Prasankumar