

Agenda

Wednesday, September 10

All Daytime Events Held in the Main Dining Room of the Faculty Club, 181 South Oval Drive. Nearest Public Parking: Ohio Union Parking Garage, 1780 College Road

- 8:00 – 8:30 AM Registration/Sign-In and continental breakfast
- 8:30 – 9:00 AM Welcome and Introductions
- Steven A. Ringel, Director, Institute for Materials Research
 - Janet Weisenberger, Associate Vice President for Research
 - William Bud Baeslack III, Dean, College of Engineering
 - Matthew Platz, Interim Dean, College of Mathematical and Physical Sciences
- 9:00 – 10:30 AM Overview of Externally-Funded, IMR-Supported OSU Materials Research Centers
- Polymer Nanoengineering for Biomedical Applications: Overview of Ohio State's NSF Nanoscale Science and Engineering Center (NSEC), L. James Lee, Director
 - Ohio Wright Center for Photovoltaics Innovation and Commercialization (PVIC), Robert J. Davis, Director
 - Center for Emergent Materials: A Proposal to Establish a NSF Materials Research Science and Engineering Center (MRSEC) at Ohio State, Nitin P. Padture, Principal Investigator
- 10:30 – 10:40 AM Break
- 10:45 – 11:45 AM OSU Targeted Investment in Excellence (TIE): New Faculty Research
- Understanding Non-equilibrium Process in Materials: Role of Computational Models and Characterization, Sudarsanam Suresh Babu, Associate Professor, Industrial, Welding and Systems Engineering and Materials Science and Engineering
 - Wide bandgap semiconductor heterostructures: highly confined quantum structure for devices, Roberto Myers, Assistant Professor, Materials Science and Engineering and Electrical and Computer Engineering

11:45 – 1:15 PM Lunch with Keynote Address: "What Happened to Curiosity-Driven Research in America?" Jerry M. Woodall, National Medal of Technology Laureate, Distinguished Professor, Electrical and Computer Engineering, Purdue University

- 1:30 – 6:00 PM Roadblock Workshop 1: "Tools, Opportunities and Challenges in Spin Injection and Transport;" Organizer: P. Chris Hammel, Physics (Break from 4:00 – 4:15)
- Spintronics: Exploiting the Electron's Other Degree of Freedom, Mark Stiles, National Institute of Standards and Technology
 - New Ideas and Materials for Spintronics, Ivar Martin, Los Alamos National Laboratory
 - Spin Transport in Semiconductor Devices: Challenges and Opportunities, Nitin Samarth, Pennsylvania State University
 - Towards Spin-Preserving, Heterogeneous Spin Networks, P. Chris Hammel, The Ohio State University

6:00 – 8:00 PM IMR Welcome Fiesta and Poster Session: Student Poster Presentations and Materials Facility and Center Poster Displays (Colleagues and Patio Areas of Faculty Club)

Thursday, September 11

All Presentations Held in Scott Laboratory Room E001, 201 West 19th Avenue
Nearest Public Parking: Tuttle Park Place Parking Garage, 2050 Tuttle Park Place

- 8:00 – 9:00 AM OSU Targeted Investment in Excellence (TIE): New Faculty Research
- Accelerated Materials Design and Materials for Energy, J.-C. Zhao, Associate Professor, Materials Science and Engineering
 - III-Nitride Semiconductor Electronics, Siddharth Rajan, Assistant Professor, Electrical and Computer Engineering and Materials Science and Engineering
- 9:00 – 11:30 AM Roadblock Workshop 2: “The Science and Issues of Phonon Engineering;” Organizer: Joseph Heremans, Mechanical Engineering
- Applications of Nano-Materials in Electronics Cooling, Ravi Prasher, Intel
 - Complex Thermoelectric Materials, G. Jeffrey Snyder, California Institute of Technology
 - Ultra-low thermal conductivity: pushing the boundaries of the thermal conductivity of materials, David G. Cahill, University of Illinois at Urbana-Champaign
- 11:45 – 1:15 PM Lunch with Overview of OSU’s Materials-Related Research Facilities: Robert Davis (Physics Research Building Atrium)
- 1:30 – 3:30 PM Roadblock Workshop 2: “The Science and Issues of Phonon Engineering;” continued
- 3:30 – 5:30 PM Facility Tours: Open house at various materials-related research facilities throughout OSU campus. A handout containing descriptions of participating facilities and map will be distributed during lunch. Transportation will be provided.
- Campus Electron Optics Facility (CEOF)
 - Campus Microscopy Instrumentation Facility (CMIF)
 - Center for Chemical and Biophysical Dynamics (CCBD)
 - ENCOMM NanoSystems Laboratory (ENSL)

- Mass Spectrometry and Proteomics Facility of the Campus Chemical Instrument Center (CCIC)
- Nanoprobe Laboratory for Bio- & Nanotechnology and Biomimetics (NLBB)
- Nanotech West Laboratory (NTW)
- Oxide MBE Laboratory
- Semiconductor Epitaxy and Analysis Laboratory (SEAL)
- Trace Element Research Laboratory (TERL)

- 6:00 – 8:00 PM Dinner Reception at The Ohio State University Moritz College of Law Barrister Club

Friday, September 12

All Presentations Held in Scott Laboratory Room E001, 201 West 19th Avenue
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- 8:30 – 11:30 AM Roadblock Workshop 3: “Biomaterials and Technology for Next Generation Public Health;” Organizer: L. James Lee, Chemical and Biomedical Engineering
- Electrochemically Programmed Release of Biomolecules and Nanoparticles, Peter Searson, Johns Hopkins University
 - A New Design of Nanosize Carriers for Target Specific Gene Delivery In Vivo, Dexi Lu, University of Pittsburgh
 - Challenges for Biomaterials Evolution, Stuart L. Cooper, The Ohio State University
 - Nanomedicines for Cancer and Leukemia, Robert J. Lee, The Ohio State University
 - Mike Paulaitis (CBE), John Lannutti (MSE)
- 11:30 – 12:45 PM Lunch with Student Poster Awards (Physics Research Building Atrium)
- 1:00 – 2:30 PM Roadblock Workshop 3: “Biomaterials and Technology for Next Generation Public Health;” continued
- 2:30 – 3:00 PM Wrap-Up and Meeting End