

Program

Sunday, July 10, 2016

- 4:00 pm to 6:30 pm Check In and Registration at Hilton Garden Inn
6:30 pm to 8:30 pm Welcome Reception at Hilton Garden Inn

Monday, July 11, 2016

- 8:00 am Check In and Registration at Wang Center
- 8:50 am Opening Remarks
Ben Ocko, *Brookhaven National Laboratory*, Doon Gibbs, *Brookhaven National Laboratory*, Richard Reeder, *Stony Brook University*
- Session I**
Andrei Fluerasu, *Brookhaven National Laboratory* (Session Chair)
- 9:10 am “Some Recent Developments in the Analysis of Grazing Incidence and Coherent Scattering from Surfaces” – Invited (I-1)
Sunil Sinha, *University of California at San Diego*
- 9:40 am “Strain Development of Pt Nanocrystal during Catalytic Process by Coherent X-ray Diffraction Imaging” – Contributed (C-1)
Hyunjung Kim, *Sogang University*
- 10:00 am “Co-GISAXS as a New Tool to Investigate Surface Growth Dynamics” – Invited (I-2)
Karl Ludwig, *Boston University*
- 10:30 am Coffee Break (provided)
- Tad Koga, *Stony Brook University* (Session Chair)
- 11:00 am “Structural X-ray Studies of Nanostructures using X-ray Nanobeams” – Invited (I-3)
Marie-Ingrid Richard, *Marseille University*
- 11:30 am “Observation of Heterodyne and Homodyne Mixing in X-ray Photon Correlation Spectroscopy during Thin Film Deposition” – Contributed (C-2)
Randall Headrick, *University of Vermont*
- 11:50 am “Enhancement of Charge Ordering by Dynamic Electron-Phonon Interaction. A Pump-Probe Study at LCLS” – Contributed (C-3)
Andrej Singer, *University of California at San Diego*
- 12:10 pm “Materials Imaging and Dynamics Station at the European X-Ray Free-Electron Laser Facility” – Invited (I-4)
Anders Madsen, *European XFEL*

- 12:40 pm Lunch (provided*)
- 1:40 pm **Session II – Introductory Remarks**
Donald Walko, *Argonne National Laboratory* (Session Chair)
- 1:50 pm “Self-Assembly and Control of Periodic Nano-Domains in Ferroelastic Thin Films” – Invited (I-5)
Beatriz Noheda, *University of Groningen*
- 2:20 pm “Templated Functionalization of Epitaxial Graphene” – Contributed (C-4)
Michael Bedzyk, *Northwestern University*
- 2:40 pm “In-situ X-ray Diffraction Studies during GaAs MBE Nanowire Growth” - Contributed (C-5)
Ullrich Pietsch, *University of Siegen*
- 3:00 pm “Scattering Approaches for Characterizing Octahedral Rotations and their Physical Effects in Oxide Heterostructures” – Invited (I-6)
Steve May, *Drexel University*
- 3:30 pm Poster Session #1 and Coffee Break (provided)
Matt Dawber, *Stony Brook University* (Session Chair)
- 5:30 pm “Insight into Spintronics from Neutrons and X-rays” – Invited (I-7)
Yaohua Liu, *Oak Ridge National Laboratory*
- 6:00 pm “In Situ Studies of GaN Vapor Phase Epitaxy on Various Surface Orientations” – Contributed (C-6)
G. Brian Stephenson, *Argonne National Laboratory*
- 6:20 pm “Alkali Antimonides: from Photocathodes to Solar Cells” – Contributed (C-7)
John Smedley, *Brookhaven National Laboratory*
- 7:15 pm Dinner at the Hilton Garden Inn (provided*)
- 8:00 pm Wang Center closes for the evening

Tuesday, July 12, 2016

- 8:00 am Check In and Registration at Wang Center
- 8:50 am **Session III – Introductory Remarks**
Milan Sanyal, *Saha Institute of Nuclear Physics* (Session Chair)
- 9:00 am “X-ray Waveguide Optics and Imaging at the Nanoscale” – Invited (I-8)
Tim Salditt, *Georg-August-Universität Göttingen*
- 9:30 am “Unlocking the Power of 2D Detectors in Surface X-ray Diffraction: Data Reduction and Visualization” – Contributed (C-8)
Jakub Drnec, *European Synchrotron Radiation Facility*

- 9:50 am “Quantum Optics with X-rays using Thin-Film Cavities” – Invited (I-9)
Ralf Roehlsberger, *Deutsches Elektronen-Synchrotron*
- 10:20 am Coffee Break (provided)

Claudio Mazzoli, *Brookhaven National Laboratory* (Session Chair)
- 10:50 am “Dynamic Imaging of Nanostructures using Femtosecond X-ray Laser Pulses” – Invited (I-10)
Changyong Song, *Pohang University of Science and Technology*
- 11:20 am “BornAgain: Simulation and Fitting Framework for Scattering Experiments at Grazing Incidence and Reflectometry” – Contributed (C-9)
Gennady Pospelov, *Forschungszentrum Juelich GmbH*
- 11:40 am “Probing Dynamic Layer Rearrangement during the Growth of Ruddlesden-Popper Series Thin Films through Surface X-ray Scattering” – Contributed (C-10)
June Hyuk Lee, *Korea Atomic Energy Research Institute*
- 12:00 pm “Reaching High-Temperature Magnetism in Intrinsic Topological Insulator - Ferromagnetic Insulator Heterostructures” – Contributed (C-11)
Valeria Lauter, *Oak Ridge National Laboratory*
- 12:20 pm Lunch (provided*) and International Meeting to decide the location of SXNS15
- 1:30 pm **Session IV – Introductory Remarks**
Mark Schlossman, *University of Illinois at Chicago* (Session Chair)
- 1:40 pm “Reduction in Tension and Stiffening of Lipid Membranes in an Electric Field Revealed by X-Ray Scattering” – Invited (I-11)
Jean Daillant, *Synchrotron SOLEIL*
- 2:10 pm “Biomimetic Model Membranes for Investigation of Membrane Transport Processes with Reflectometry” – Contributed (C-12)
Irena Kiesel, *Institut Laue-Langevin*
- 2:30 pm “Different Effects of Hydrophilic and Hydrophobic Silica Nanoparticles on the Dynamics of Phospholipid Films” – Contributed (C-13)
Luigi Cristofolini, *University of Parma*
- 2:50 pm “Aggregation States of a Highly Bio-inert Polymer Blend at Water Interface by Neutron Reflectivity” – Invited (I-12)
Keiji Tanaka, *Kyushu University*
- 3:20 pm Poster Session #2, Group Photo and Coffee Break (provided)

John Ankner, *Oak Ridge National Laboratory* (Session Chair)
- 5:20 pm “Combining Neutron or X-ray Reflectivity with Hydrogen-Deuterium Exchange Mass Spectrometry to Resolve Conformations of Membrane Associated Proteins” – Invited (I-13)
Michael Kent, *Sandia National Laboratories*

- 5:50 pm “Probing the Structure and Antibiotic Susceptibility of Yeast Membranes using Neutrons - Effect of Lipid Composition on the Mechanism of Amphotericin B” – Invited (I-14)
Hanna Wacklin, *European Spallation Source ERIC*
- 6:20 pm “Two-Dimensional Assembly of Gold Nanoparticles at Vapor/Liquid Interfaces” – Contributed (C-14) Wenjie Wang, *Ames Laboratory*
- 7:15 pm Dinner at the Hilton Garden Inn (provided*)
- 8:00 pm Wang Center closes for the evening

Wednesday, July 13, 2016

- 8:00 am Check In and Registration at Wang Center
- 8:50 am **Session V – Introductory Remarks**
Sushil Satija, *National Institute of Standards and Technology* (Session Chair)
- 9:00 am “From Liquid Crystals to Liquid Metals: The Birth and Maturation of Liquid Surface Scattering” – Special (S-1)
Peter Pershan, *Harvard University*
- 9:30 am “Ionic Liquids at Interfaces” – Contributed (C-15)
Philippe Fontaine, *Synchrotron SOLEIL*
- 9:50 am “Alkyl Chain Length Dependence of the Interfacial Structure of Ionic Liquids” – Invited (I-15)
Moshe Deutsch, *Bar-Ilan University*
- 10:20 am Coffee Break (provided)

Paul Fenter, *Argonne National Laboratory* (Session Chair)
- 10:50 am “The Original NSLS CTR Beamline: X16A” – Special (S-2)
Ian K. Robinson, *Brookhaven National Laboratory/London Center for Nanotechnology*
- 11:20 am “Temperature- and Potential-Dependent Structure of the Mercury-Electrolyte Interface” – Contributed (C-16)
Bridget Murphy, *University of Kiel*
- 11:40 am “Molecular Scale Structure and Dynamics of Concentrated Electrolytes at Charged Interfaces” – Invited (I-16)
Ahmet Uysal, *Argonne National Laboratory*
- 12:10 pm “Transmission Surface Diffraction: A Novel Method for Operando Studies of Electrochemical Interfaces” – Contributed (C-17)
Jochim Stettner, *Kiel University*
- 12:30 pm Lunch (provided*)

Tom Arnold, *Diamond Light Source* (Session Chair)

- 1:30 pm “Nanoscale Structure of Si/SiO₂/Organics Interfaces” – Contributed (C-18)
Hans-Georg Steinrück, *SLAC National Accelerator Laboratory*
- 1:50 pm “Orbital Polarization Driven by Anisotropic Hybridization in a Nickelate Heterostructure determined by Resonant Inelastic X-Ray Scattering” – Contributed (C-19)
Mark Dean, *Brookhaven National Laboratory*
- 2:10 pm “Reduced Diffusion Dynamics of Polymer Thin Films near Graphene Oxide Surfaces: Neutron Reflectivity Studies” – Contributed (C-20)
Jaseung Koo, *Korea Atomic Energy Research Institute*
- 2:30 pm Poster Winner Talks
- 3:10 pm Bus A departs for BNL (tours #1-3)
- 3:30 pm Bus B departs for BNL (tours #4-6)
- 4:00 pm BNL (NSLS-II/740) tours #1-3
- 4:30 pm BNL (NSLS-II/740) tours #4-6
- 4:45 pm Bus A departs from SBU Wang Center for the Riverhead Aquarium, stopping at BNL.
- 5:20 pm SBU bus departs from BNL Berkner to SBU
- 5:30 pm Bus A and B depart from NSLS-II for Riverhead
- 6:00 pm Buses arrive in Riverhead
- 6:00 pm Banquet Dinner (separate cost; tickets required)
- 10:00 pm Buses depart for hotels and SBU
- 10:45 pm Buses arrive at hotels and SBU

Thursday, July 14, 2016

- 8:00 am Check In and Registration at Wang Center
- 8:50 am **Session VI – Introductory Remarks**
Cheng Wang, *Lawrence Berkeley National Laboratory* (Session Chair)
- 9:00 am “Grazing-Incidence X-Ray Scattering From Thin Polymer Films” – Invited (I-17)
Gila Stein, *University of Houston*
- 9:30 am “Wetting, Alignment and Roughness - lamellar Phases at Solid Interfaces” – Contributed (C-21)
Adrian Rennie, *Uppsala University*

- 9:50 am “Effect of Chain Architecture on the Interdiffusion in Thin Polymer Films” – Invited (I-18)
Bulent Akgun, *Bogazici University*
- 10:20 am “Surface X-ray Scattering Probes Dynamical Anomalies of Polymer Grafted Nanocolloids in Polymer Films” – Invited (I-19)
Jaydeep Basu, *Indian Institute of Science*
- 10:50 am Coffee Break (provided)

Ron Pindak, *Brookhaven National Laboratory* (Session Chair)
- 11:20 am “Photothermal Assembly of Block Copolymers” – Invited (I-20)
Kevin Yager, *Brookhaven National Laboratory*
- 11:50 am “Anisotropic de Gennes Narrowing in Confined Fluids” – Contributed (C-22)
Kim Nygard, *University of Gothenburg*
- 12:10 pm “High-resolution Grazing-incidence X-ray Scattering for Three-dimensional Structures in Thin Films and Buried Nanostructures” – Invited (I-21)
Zhang Jiang, *Argonne National Laboratory*
- 12:40 pm Closing Remarks
- 12:50 pm Box Lunch (provided*)
- 1:19 pm SBU train to NYC (on campus)
- 2:46 pm Next SBU train to NYC (on campus)

*Meals provided for non-BNL registered attendees only.