ORNL/Georgia Tech Joint Workshop in Neutron Science and Scattering

Date: Wednesday, January 27, 2016

Organizing Committee: Nazanin Bassiri-Gharb, Julia Kubanek, Kathryn Bond, Greg Smith, Gabrielle Boudreau

Objective: Establish stronger links between ORNL Neutron Sciences Directorate and Science and Engineering Researchers at Georgia Tech.

Location: Georgia Institute of Technology
Marcus Nanotechnology Building, Room 1117/1118
345 Ferst Drive NW, Atlanta, GA 30318

Schedule:

8:00 – 8:30	**Continental Breakfast, Registration**
8:30 – 8:40	**Welcome by Steve Cross** Executive Vice President for Research Georgia Institute of Technology
8:40 – 9:00	**Welcome by Alan Tennant** Chief Scientist, Neutron Sciences Oak Ridge National Laboratory
9:00 – 9:25	**ORNL Presentation (20 minute presentation + 5 minute discussion)** *Study of Hydrogen Bonding in Energy Materials Using Single Crystal Neutron Diffraction* Xiaoping Wang, Chemical and Engineering Materials Division
9:25 – 9:50	**ORNL Presentation (20 minute presentation + 5 minute discussion)** *Thin Films and Interfaces* Mike Fitzsimmons, Quantum Condensed Matter Division
9:50 – 10:15	**ORNL Presentation (20 minute presentation + 5 minute discussion)** *Universal Characteristics of Water Dynamics in Restricted Geometries Using Quasi-elastic Neutron Scattering* Souleymane Omar Diallo, Chemical and Engineering Materials Division

10:15 – 10:45	**Coffee Break**
10:45 – 10:57	**CoE speaker (10 minute presentation + 2 minute discussion)** *Process-structure-property relations in polymer organic electronics* Martha Grover, School of Chemical & Biomolecular Engineering
10:57 – 11:09	**CoS speaker (10 minute presentation + 2 minute discussion)** *Organic-inorganic Materials Systems for Energy Applications* Mark Losego, School of Materials Science and Engineering
11:09 – 11:21	**CoE speaker (10 minute presentation + 2 minute discussion)** *Understanding Atomic Vibrations in Disordered Materials* Asegun Henry, Woodruff School of Mechanical Engineering
11:21 – 11:33	**CoS speaker (10 minute presentation + 2 minute discussion)** *Biochemical and Structural Characterization of Unusual Hydrolytic Enzymes* Raquel Lieberman, School of Chemistry & Biochemistry
11:33 – 11:45	**CoE speaker (10 minute presentation + 2 minute discussion)** *Pathways to Improved Lifetime of Electrochemical Systems: Understanding Dynamic Materials Processes* Matt McDowell, Woodruff School of Mechanical Engineering
11:45 – 12:15	**Discussion of Future Opportunities for Collaborative Research**
12:15 – 1:45	**Lunch and Poster Session**
1:45 – 2:10	**ORNL Presentation (20 minute presentation + 5 minute discussion)** *Macromolecular Neutron Crystallography: Elusive Species Protonation States and Proton Transfer* Andrey Kovalevsky, Biology and Soft Matter Division
2:10 – 2:35	**ORNL Presentation (20 minute presentation + 5 minute discussion)** *Bio-Materials and Scattering* William Heller, Biology and Soft Matter Division
2:35 – 3:00	**ORNL Presentation (20 minute presentation + 5 minute discussion)** *Soft Matter: Micelle Aggregation and Labelling* Changwoo Do, Biology and Soft Matter Division
3:00 – 3:30	**Coffee Break**
3:30 – 3:42	**CoS speaker (10 minute presentation + 2 minute discussion)** *Synthesis, Structure and Reaction Chemistry of Hydride-Bridged Coinage*

	Metal Complexes Joseph Sadighi, School of Chemistry & Biochemistry
3:42 – 3:54	**CoE speaker (10 minute presentation + 2 minute discussion)** *Neutron Spectroscopy on Quantum Materials* Martin Mourigal, School of Physics
3:54 – 4:06	**CoS speaker (10 minute presentation + 2 minute discussion)** *Exploring the Multiscale Physics of Muscle Through Small-angle X-ray Scattering* Simon Sponberg, School of Physics and School of Applied Physiology
4:06 – 4:18	**CoE speaker (10 minute presentation + 2 minute discussion)** *Multiscale Electron Microscopy for Characterization of Materials in Extreme Environments* Josh Kacher, School of Materials Science & Engineering
4:18 – 4:30	**CoS speaker (10 minute presentation + 2 minute discussion)** *Engineering Functional Protein Nanoparticles* M.G. Finn, School of Chemistry & Biochemistry and School of Biology
4:30 – 5:00	**Discussion of Future Opportunities for Collaborative Research** All participants