

ORNL/Georgia Tech Joint Workshop in Neutron Science and Scattering

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Oak Ridge National Laboratory Presenters' Biographies



Souleymane Omar Diallo, omardiallos@ornl.gov

Dr. Diallo is an instrument scientist on the ORNL BASIS instrument, SNS beam line 2. His current scientific interests are in the field of biological physics; in particular in understanding the relationship between the structure and dynamics of proteins or other complex macromolecules (polymers), the water around them, and their biological functions under varying physiological and environmental conditions. He received his PhD in condensed matter physics from the university of Delaware. Prior to joining ORNL, he was a postdoctoral research associate in the neutron and X-ray scattering group at Ames Laboratory.



Changwoo Do, doc1@ornl.gov

Dr. Do is an instrument scientist on the ORNL EQ-SANS instrument, SNS beam line 6. His primary research interests are in the structure and dynamics understanding of soft materials including polyelectrolytes, water, charged micelles, and block copolymer self-assemblies. He also uses molecular dynamics to assist interpretation of neutron scattering data and to understand molecular level structure and dynamics that are complementary to the experiment. Changwoo studied physics at KAIST in South Korea and at the Massachusetts Institute of Technology, and received a Ph.D. in nuclear and quantum engineering at KAIST.



William Heller, hellerwt@ornl.gov

Dr. Heller is a physicist and the lead instrument scientist on the ORNL EQ-SANS instrument, SNS beam line 6. His primary research interests are in the structure of biomembranes and their interactions with proteins and peptides. William also develops methods and software for modeling small-angle scattering data. Heller studied physics and mathematics at the University of Nebraska, Lincoln, and received a Ph.D. in physics from Rice University.



Mike Fitzsimmons, fitzsimmonsm@ornl.gov

Dr. Fitzsimmons is the group leader of the Thin Films and Nanostructures, Quantum Condensed Matter Division, ORNL Neutron Sciences Directorate. Fitzsimmons' scientific research involves neutron and X-ray scattering studies of interfaces in complex materials and nanocomposites. He received his Ph.D. from Cornell University. He worked at Los Alamos National Laboratory, served as an affiliate of the University of California at San Diego, and was a four-time visiting researcher at the Université H. Poincaré Vandœuvre les Nancy, France. Fitzsimmons is presently the Treasurer and an Officer of the Board of Directors for Materials Research Society. Fitzsimmons is a fellow of the American Physical Society and the Neutron Scattering Society of America.





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Andrey Kovalevsky, kovalevskyay@ornl.gov

Dr. Kovalevsky is a macromolecular crystallographer, biochemist and instrument scientist on the IMAGINE instrument, HFIR beam line CG-4D. His current research focuses on the atomic level understanding of enzyme function, drug binding, and drug resistance, including the effects of molecular dynamics, utilizing macromolecular X-ray and neutron crystallography and other biophysical methods. He held a Director's Postdoctoral Fellowship while at Los Alamos National Laboratory (LANL), where he was awarded the Postdoctoral Distinguished Performance Award. He also held a position as a Staff Scientist at LANL. Kovalevsky studied organic chemistry and crystallography at Kharkov State University, Kharkov, Ukraine, receiving an M.Sc. with honors, and received his Ph.D. in Physical Chemistry from the State University of New York at Buffalo. He studied macromolecular crystallography, biochemistry and molecular biology while working as a Postdoctoral Associate at Georgia State University, and then as a Postdoctoral Fellow at LANL.



Greg Smith, smithqs1@ornl.gov

Dr. Smith is the group leader for the Structure and Dynamics of Soft Matter Group, in the Biology and Soft Matter Division, ORNL Neutron Sciences Directorate. Smith's current research includes studies of the structure and interactions in biomimetic membranes and soft colloids. Smith received a Ph.D. in condensed matter physics from Iowa State University. He worked at Los Alamos National Laboratory as an instrument scientist and deputy group leader. Smith is a Fellow of the American Physical Society and the Neutron Scattering Society of America.



Alan Tennant, tennantda@ornl.gov

Dr. Tennant is the chief scientist for Oak Ridge National Laboratory's Neutron Sciences Directorate and director of the Joint Institute for Neutron Sciences, a partnership between ORNL and the University of Tennessee, Knoxville. Tennant studied physics at the University of Edinburgh, Scotland, and earned his Ph.D. at the University of Oxford. He served as a professor at the Technical University, Berlin, and institute director in the field of magnetism at the Helmholtz Center Berlin. Tennant received the Europhysics Prize for the experimental observation of magnetic monopoles in spin ice in 2012.



Xiaoping Wang, wangx@ornl.gov

Dr. Wang is an instrument scientist co-responsible for the TOPAZ single crystal diffractometer, ORNL Spallation Neutron Source beam line 12. He received his Ph.D. in inorganic chemistry from Texas A&M University in 1998, where he did his graduate work with Professor F. Albert Cotton. Wang's primary research interest is applications of neutron single crystal crystallography in chemistry and materials science. He was chair-elect and chair of the Small Molecule SIG of the American Crystallographic Association in 2006 and 2007. Dr. Wang is co-author of more than 120 research papers published in peer-reviewed journals.