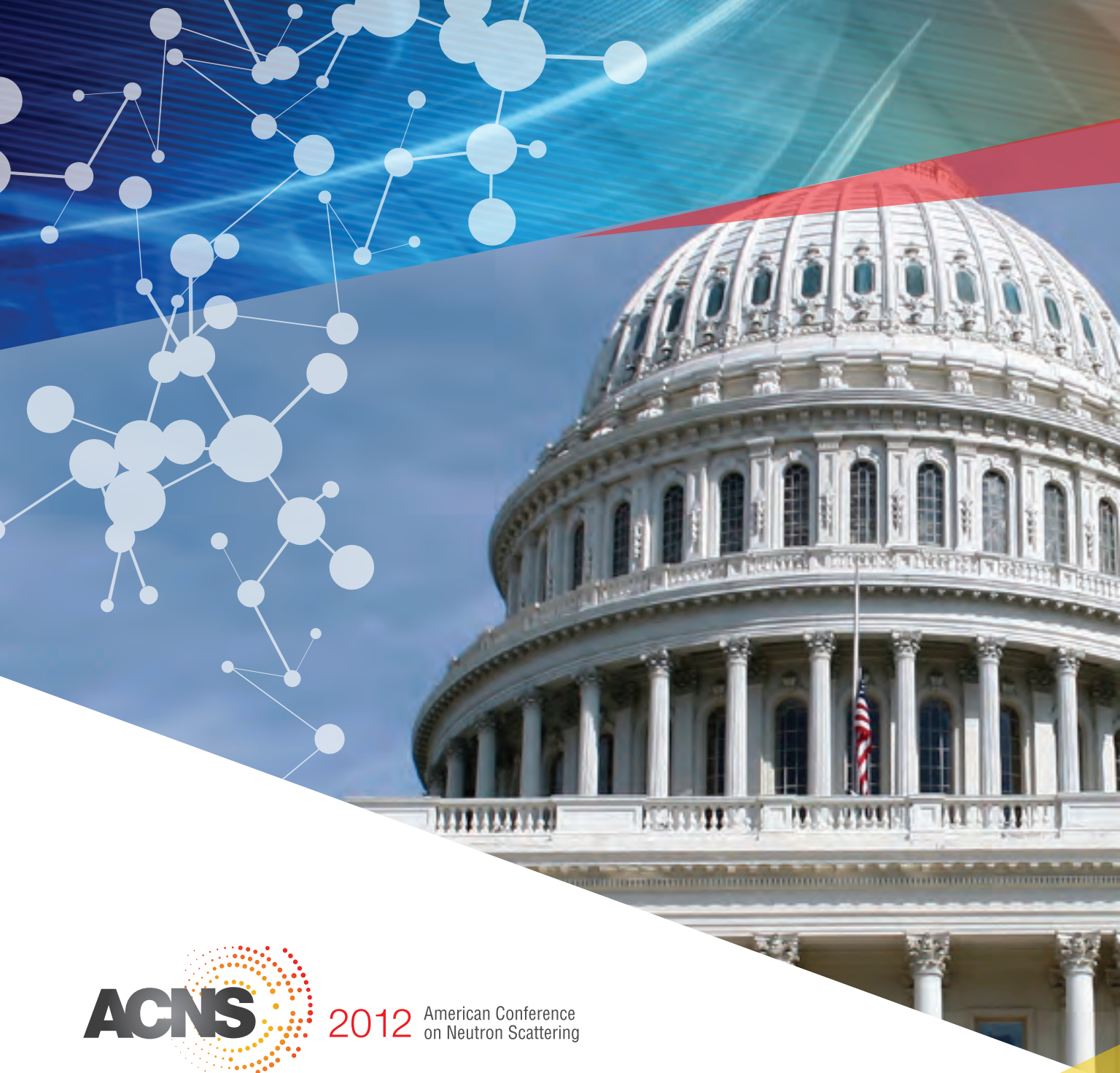

ACNS 2012 American Conference on Neutron Scattering

PROGRAM & EXHIBIT GUIDE

June 24-28, 2012 | Georgetown University Hotel and Conference Center
Washington, D.C., USA

ACNS 2012

Welcome!

Welcome to the American Conference on Neutron Scattering (ACNS 2012) at Georgetown University in Washington, DC. The Conference is returning to the DC area for the first time since ACNS 2004. We are confident you'll find an excellent and engaging technical program and, of course, Washington, DC is a beautiful and exciting city to explore. The monuments and museums are only a short Metro ride away. Remember to take advantage of the impressive shops and restaurants on the Georgetown waterfront, which are within walking distance.

While the nation's budgetary situation has been of some concern, our infrastructure for neutron science remains in an extraordinary period of growth. New instrumentation continues to completion at the Spallation Neutron Source and HFIR at Oak Ridge. The NCNR at NIST has just completed the expansion of its guide hall and related facilities, and is once again open for business. We hope you will be able to take advantage of the tour of the expansion of the facilities at NIST that will be available at the end of ACNS 2012—we're sure you'll find it most impressive. Both LANSCE and the Canadian Neutron Beam Centre at Chalk River continue to operate reliably and well. We have every reason to believe that the upcoming couple of years will be very productive scientifically, as this new infrastructure moves to maturity.

Of course we are here to communicate, educate, and celebrate our advances in neutron scattering in North America, and this will keep us pretty busy for the full Conference. We are looking forward to an excellent program, with special thanks to the hard working Program Chairs, Nitash Balsara and Stephan Rosenkranz. As a result of the extraordinary efforts of the Local Organizing Committee, led by Susan Krueger, many students and young researchers have the opportunity to participate in this meeting at minimal expense to their home institute. We have also been very fortunate to have the expertise and extensive help from the staff at the Materials Research Society (MRS) who have assisted with many aspects of the organization.

At this Conference we will honor a number of people with NSSA prizes and as NSSA Fellows. More information can be found on pages 5-7. A great deal of work goes into administering these prizes, both by members of the community taking the time to put together nomination packages, and by the prize and fellows selection committees. We would like to take this opportunity to thank these people, and to encourage you to participate in this process by nominating someone for the next round of prizes and fellowships in the year prior to ACNS 2014.

Finally, we would like to thank our sponsors, without whom this meeting could not go ahead: the Neutron Sciences Directorate at Oak Ridge National Laboratory, the Lujan Neutron Scattering Center at the Los Alamos Neutron Science Center, the NIST Center for Neutron Research, the NRC Canadian Neutron Beam Centre and the US Department of Energy, Office of Basic Energy Sciences for generous financial support. We also are grateful for support from our industrial exhibitors; please stop by their booths and say hello.

Most importantly, we express our appreciation to all of you for contributing your time and energy to the meeting. On behalf of the Neutron Scattering Society of America, we wish you a very productive and most enjoyable ACNS 2012!

Bruce D. Gaulin NSSA President
Julie A. Borchers ACNS 2012 Conference Chair

TECHNICAL SESSIONS

A: Plenary & Prize Sessions
B: Sources, Instrumentation & Software
C: Soft Condensed Matter
D: Hard Condensed Matter
E: Biology
F: Chemistry
G: Energy & Engineering Applications
H: Neutron Physics

For electronic access to all Conference information, scan the QR code to the left or visit www.mrs.org/acns-2012.

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Conference Highlights

ABOUT ACNS 2012

Scientists from 16 countries will converge in Washington, DC this week for the **2012 American Conference on Neutron Scattering.** Sponsored by the **Neutron Scattering Society of America** and hosted by **NIST Center for Neutron Research,** the conference features over 325 oral and poster presentations. A strong program of plenary, invited and contributed talks and poster sessions cover topics in soft condensed matter, hard condensed matter, biology, chemistry, energy and engineering applications and neutron physics—confirming the great diversity of science that is enabled by neutron scattering.

TUTORIALS

Start the Conference off on Sunday afternoon with **two tutorials** free to conference attendees. Featured topics are *Advances in Time-of-Flight Powder Diffraction,* and *Novel Techniques for Small Angle Neutron Scattering.* For more details, see page 10.

WELCOME RECEPTION

Conference attendees are invited to the **Welcome Reception** on Sunday evening from 5:00 pm – 8:00 pm in Room C/F/H. **One Reception ticket is included in the Conference registration fee.**

POSTER SESSIONS/RECEPTIONS

Authors are available for in-depth discussions of their research during the **Poster Sessions and Receptions** held in Room C/F/H Monday and Wednesday from 6:00 pm – 7:30 pm and Tuesday from 3:30 pm – 5:30 pm. **These popular sessions are open to all registered Conference attendees.** Complimentary refreshments will be served.

COMPANION TICKET

Guests/companions accompanying you to the Conference may purchase Companion Tickets for $100 per person. Tickets grant **admission to the Welcome and Poster Receptions,** and may be purchased at the Registration Desk.

EXHIBIT

Be sure to visit the **ACNS exhibitors** Sunday through Wednesday, in Room C/F/H. Learn more about the latest products and services in the rapidly evolving world of neutron scattering. See daily Schedule of Events for times.

NSSA PRIZE CEREMONY

Tuesday morning brings special honors to four recipients. **Robert J. Birgeneau,** University of California, Berkeley, receives the Clifford G. Shull Prize; **Gian Piero Felcher,** Argonne National Laboratory, receives the Sustained Research Prize; **Guangyong Xu,** Brookhaven National Laboratory, receives the Science Prize; and **Claire White,** Los Alamos National Laboratory, receives the inaugural Prize for Outstanding Student Research. Join us at 8:15 am in Room G for this momentous occasion.

CONFERENCE BANQUET

Don't miss this year's Conference Banquet—Tuesday evening at 7:00 pm in Room G—featuring talks from leading experts in the field. **Robert D. Shull,** National Institute of Standards and Technology, will present his talk: *A Memoir of Clifford G. Shull, Neutron Scattering at the Beginning,* and **Sam Werner,** National Institute of Standards and Technology, will present *The Founding of NASA 20 Years Ago*. Tickets for this event are required and may be purchased at registration for $75.00 per person. Admission to the Banquet is not included in conference registration.

NIST TOUR

The Conference culminates on Thursday with a **free tour** of the NIST facilities in Gaithersburg, Maryland. Advance registration was required. See Registration Desk for bus times and location.

EXPERIENCE THE NATION'S CAPITAL—WASHINGTON, DC

Georgetown, situated on the bluffs of Washington, DC, is rich in history and culture, making it an **ideal conference and vacation destination**. Known for its high-end shopping and dining and quaint row houses overlooking Waterfront Harbor, Georgetown is truly unlike any other city in the U.S. Take a walk back in time on the famous 18th century cobblestone streets. Visit the palatial gardens at Dumbarton Oaks, a mansion built in 1800 for Senator John Calhoun. Add in all the sites and attractions found in nearby Washington, DC, and you'll never have a dull moment!

SAVE THE DATE!

The **2013 International Conference on Neutron Scattering (ICNS 2013)** will be held in Edinburgh, UK, July 8-12, 2013. Mark your calendar today!

Special Presentations

MONDAY, JUNE 25 Room G

PLENARY

8:30 am – 9:00 am
Altaf H. Carim
Office of Science and Technology Policy,
Executive Office of the President

Federal Science and Technology Policy, Initiatives, and Budget for Fiscal Year 2013

SCIENCE PRIZE WINNER

9:00 am – 9:30 am
Guangyong Xu
Brookhaven National Laboratory

Probing Local Polar Structures in PZN-xPT and PMN-xPT Relaxor Ferroelectrics using Neutron and X-Ray Scattering

PLENARY

9:30 am – 10:00 am
Timothy Lodge
University of Minnesota

Dynamics of Chain Exchange in Block Copolymer Micelles

TUESDAY, JUNE 26 Room G

SHULL PRIZE WINNER

8:30 am – 9:15 am
Robert J. Birgeneau
University of California, Berkeley
and Lawrence Berkeley National Laboratory

Structural, Magnetic and Superconducting Transitions in the Iron Pnictides and Chalcogenides

SUSTAINED RESEARCH PRIZE WINNER

9:30 am – 10:00 am
Gian Piero Felcher
Argonne National Laboratory

Probing Surfaces and Interfaces with Neutrons
This talk will be presented by Suzanne te Velthuis on behalf of Felcher.

WEDNESDAY, JUNE 27 Room G

SOCIETY PRESIDENT LECTURE

8:35 am – 8:50 am
Yasuhiko Fujii
Comprehensive Research Organization for Science and Society

The Asia-Oceania Neutron Scattering Association (AONSA) Aiming at Global Cooperation

OUTSTANDING STUDENT RESEARCH PRIZE WINNER

9:00 am – 9:30 am
Claire White
Los Alamos National Laboratory

Recent Progress in Elucidating Accurate Structural Representations of Disordered Complex Materials

PLENARY

9:30 am – 10:00 am
Leon Balents
University of California, Santa Barbara

Quantum Spin Liquids

NSSA EXECUTIVE COMMITTEE

President	**Bruce D. Gaulin** McMaster University
Vice President	**Julie Borchers** NIST Center for Neutron Research
Treasurer	**John Tranquada** Brookhaven National Laboratory
Secretary	**Chris Leighton** University of Minnesota
Membership Secretary	**Jaime A. Fernandez-Baca** Oak Ridge National Laboratory
Communications Secretary	**Thomas Proffen** Oak Ridge National Laboratory

ORGANIZING COMMITTEE

Conference Chair	**Julie Borchers** NIST Center for Neutron Research
NSSA President	**Bruce D. Gaulin** McMaster University

PROGRAM COMMITTEE

Co-Chair	**Nitash Balsara** University of California, Berkeley
Co-Chair	**Stephan Rosenkranz** Argonne National Laboratory

A: Plenary & Prize Sessions
Stephan Rosenkranz Argonne National Laboratory
Nitash Balsara University of California, Berkeley

B: Sources, Instrumentation & Software
Garrett Granroth Oak Ridge National Laboratory
Roger Pynn Indiana University

C: Soft Condensed Matter
Lynn Walker Carnegie Mellon University
Megan Robertson University of Houston
Mike Kent Sandia National Laboratories

D: Hard Condensed Matter
Jeff Lynn National Institute of Standards and Technology
Young Lee Massachusetts Institute of Technology
Michael Fitzsimmons Los Alamos National Laboratory

E: Biology
William Heller Oak Ridge National Laboratory
David Worcester University of Missouri, Columbia

F: Chemistry
Patrick Woodward Ohio State University
John Greedan McMaster University

G: Energy & Engineering Applications
Mike Crawford Du Pont
Xun-Li Wang Oak Ridge National Laboratory

H: Neutron Physics
Gordon Jones Hamilton College
Paul Huffman North Carolina State University

LOCAL ORGANIZING COMMITTEE

Chair	**Susan Krueger** NIST Center for Neutron Research
	Tanya Burke NIST Center for Neutron Research
	Mary Ann Fitzgerald NIST Center for Neutron Research
	Peter Gehring NIST Center for Neutron Research
	Yamali Hernandez NIST Center for Neutron Research
	Steve Kline NIST Center for Neutron Research
	Kathryn Krycka NIST Center for Neutron Research
	Faye Rubinson Georgetown University
	Sarah Stoll Georgetown University
	Richard Weiss Georgetown University

The Neutron Scattering Society of America (NSSA) is an organization of persons who have an interest in neutron scattering research in a wide spectrum of disciplines from materials science to physics, chemistry to biochemistry. The NSSA was formed in 1992 to provide a forum for the discussion of scientific issues, major facilities and instrumentation needs for world-class neutron scattering research in North America. The main goal of the Society is to stimulate, promote and broaden the use of neutron scattering in science, engineering and technology.

Membership in the Society is available at no cost to individuals in academia, industry and government. Graduate students and recent Ph.D.s are especially encouraged to join. Presently the NSSA has more than 1200 members from 26 countries.

We encourage all conference attendees to stop by the NSSA booth during the ACNS conference, or visit www.neutronscattering.org.

The Neutron Scattering Society of America is pleased to announce the 2012 Fellows of the Society.

TUESDAY, JUNE 26

9:15 am | Room G

Julie Borchers NIST Center for Neutron Research
For insightful neutron investigations of magnetic materials, particularly interlayer exchange interactions phenomena in magnetic thin films and superlattices

Robert Cava Princeton University
For outstanding applications of neutron diffraction to the understanding of complex materials, and advocacy for the field particularly among young scientists

Charles Glinka University of Delaware and National Institute of Standards and Technology
For development and operation of world-class capabilities for small angle neutron scattering in America

Eric Kaler University of Minnesota
For enormous contributions to the science of soft matter and mentoring of young scientists in scattering science

Roger Pynn University of Indiana
For outstanding contributions to neutron scattering instrumentation and research, and for service to the U.S. neutron community

Steven Shapiro Brookhaven National Laboratory
For influential studies of phonons and phase transitions, as well as for contributions to the neutron scattering community

Gregory Smith Oak Ridge National Laboratory
For pioneering neutron scattering investigations of soft-condensed matter systems

Haskell Taub University of Missouri
For sustained studies of the structure, phase transitions, and dynamics of adsorbed films using neutron scattering techniques and for training of a future generation of neutron scattering scientists and engineers

Samuel Werner National Institute of Standards and Technology
For elegant neutron experiments contributing to the understanding of quantum physics and for his sustained efforts to promote neutron science

Through the NSSA Fellowship Program, the NSSA recognizes members who have made significant contributions to the neutron scattering community in North America in one or more of the following areas: advances in knowledge through original research and publication; innovative contributions in the application of neutron scattering; contributions to the promotion or development of neutron scattering techniques; and service and participation in the activities of the NSSA or neutron community. Each year, election to Fellowship of the Neutron Scattering Society of America is limited to no more than one half of one percent of the membership. Additionally, recipients of the Clifford G. Shull Prize and Sustained Research Prize are automatically named Fellows of the Society. Election as NSSA Fellow recognize outstanding contributions to neutron scattering and the North American neutron scattering community.

The Neutron Scattering Society of America is pleased to announce the 2012 recipients of its four major prizes.

PRIZE CEREMONY | TUESDAY, JUNE 26
8:15 am | Room G

CLIFFORD G. SHULL PRIZE

Robert J. Birgeneau University of California, Berkeley and Lawrence Berkeley National Laboratory

for his seminal scientific contributions, tireless leadership, and devoted mentoring in the field of neutron scattering

The Clifford G. Shull Prize in Neutron Science recognizes outstanding research in neutron science and leadership promoting the North American neutron scattering community. The prize is named in honor of Clifford G. Shull, who received the Nobel Prize in 1994 for seminal developments in the field of neutron science.

ROBERT J. BIRGENEAU, chancellor and professor of physics at the University of California, Berkeley, has used neutron scattering as the primary experimental tool for a long series of seminal discoveries in the field of magnetism and correlated electrons. His research has tackled the leading scientific questions of the time, and his work has had lasting impact.

Birgeneau's celebrated studies of the physics of low-dimensional magnetism defined his early career in neutron scattering. Beginning in the late 1960s, in collaboration with Gen Shirane, Birgeneau studied the magnetic phase transition and associated spin correlations in the two-dimensional antiferromagnet K_2NiF_4. They developed a technique for the efficient energy-integration of spin fluctuations in low-dimensional systems, without sacrificing q-resolution. The power of this technique is highlighted by its use 20 years later to elucidate the physics of the spin-1/2 square-lattice antiferromagnets La_2CuO_4 and $Sr_2Cu_2OCl_2$. This latter work, which was also performed by Birgeneau, represents landmark contributions of the neutron scattering technique to central questions in condensed matter physics.

Birgeneau has also impacted the field of high-temperature superconductivity. In a research program that began in the late 1980s and continues to this day, he has revealed how magnetism evolves across the cuprate phase diagram (from the lightly doped to the overdoped compositions). In early work, he and his collaborators found antiferromagnetic fluctuations persist in doped La_2CuO_4 based compounds, and spin fluctuations become incommensurate at superconducting doping levels. Birgeneau's research also includes pioneering discoveries related to magnetic excitations in spin chains, the magnetic structure and dynamics in percolative and random field systems, and spin-Peierls physics.

An equally important legacy has ensued from his academic role as a mentor and teacher. Birgeneau has trained numerous young scientists, who now populate the ranks of the neutron scattering community. His enthusiasm for science and high standards for performing research are often noted by those he mentored as having an indelible influence on their careers. Birgeneau has also been a tireless and articulate advocate of the neutron scattering technique in public lectures and articles. He has served on scientific advisory panels, been an active voice in various capacities regarding the science enabled by the DOE scattering facilities, and chaired an important DOE-BESAC panel regarding the future of neutron reactor facilities in this country.

Birgeneau received his Ph.D. from Yale University in 1966. He was a scientist at Bell Laboratories from 1968-1975 and became a professor of physics at MIT in 1975. He served as the head of the Department of Physics from 1988-1991 and then dean of the School of Science at MIT from 1991-2000. From 2000-2004, he was president and professor of physics at the University of Toronto. He has received numerous awards, including the APS Oliver E. Buckley Award (1987), the IUPAP Magnetism Award (1997), and the APS J. E. Lilienfeld Award (2000). Birgeneau has over 425 papers and almost 25,000 total citations to date.

Presentation: Structural, Magnetic and Superconducting Transitions in the Iron Pnictides and Chalcogenides
Tuesday | 8:30 am – 9:15 am

SCIENCE PRIZE

Guangyong Xu Brookhaven National Laboratory

for his work on relaxor ferroelectrics that have provided new insights into the role of polar nano-regions in determining the extreme electromechanical properties of these materials

The Science Prize recognizes a major scientific accomplishment or important scientific contribution within the last 5 years using neutron scattering techniques.

GUANGYONG XU has achieved profound experimental insights in relaxor ferroelectrics through neutron and synchrotron x-ray diffraction. By combining these techniques, he discovered that single crystalline relaxors such as $PbZn_{1/3}Nb_{2/3}O_3$ (PZN) and $PbMg_{1/3}Nb_{2/3}O_3$ (PMN) form a rhombohedral surface layer with a thickness up to 10 μm. Within the cubic bulk, he obtained clear evidence through coherent diffuse scattering of polar nano-regions that respond by changing shape to an applied electric field. He also found, through inelastic neutron scattering, that the field dependent configuration of polar nano-regions strongly affects phonon propagation through the bulk.

Relaxor ferroelectrics play an increasingly important technological role—PZN with 4.5% $PbTiO_3$, for example, displaying the largest known piezo-electric coefficient. Xu's work links these properties to unique field dependent atomic scale bulk and surface structure. His experiments have poised this field of research and development for a breakthrough in understanding and designing improved relaxor ferroelectrics.

Xu received his Ph.D. in 1999 from Johns Hopkins University and joined Brookhaven National Laboratory in 2002. Xu is currently a tenured physicist at Brookhaven National Laboratory.

Presentation: Probing Local Polar Structures in PZN-xPT and PMN-xPT Relaxor Ferroelectrics using Neutron and X-Ray Scattering
Monday | 9:00 am – 9:30 am

SUSTAINED RESEARCH PRIZE

Gian Piero Felcher Argonne National Laboratory

for pioneering the development of neutron reflectometry and demonstrating its application to magnetic and polymer film systems

The Sustained Research Prize recognizes a sustained contribution to a scientific subfield, or subfields, using neutron scattering techniques, or a sustained contribution to the development of neutron scattering techniques.

GIAN PIERO FELCHER has been involved in developing neutron scattering instrumentation throughout his career, the most notable of which is the polarized neutron reflectometer. In 1981, he suggested the use of polarized neutrons as a way to probe the surface magnetism of a ferromagnetic material, nickel. The interaction of neutrons with magnetic materials had previously been described in optical terms, and reflectivity measurements were used to determine coherent scattering lengths of materials, but Felcher's suggestion that polarized neutron reflectivity could be used to learn about the magnetism close to the surface was unique. Through his foresight, he was able to construct the first dedicated polarized neutron reflectometry at Intense Pulsed Neutron Source (IPNS) at Argonne National Laboratory in 1984.

Felcher was quick to realize the potential of neutron reflectometry in polymer science, and split the IPNS beam line into two instruments—one with a polarized beam dedicated to magnetism and one to soft condensed matter. His experimental confirmation of de Gennes' reptation theory for diffusion in polymers and the measurement of off-specular scattering due to lateral structures within polymer films provided answers for expanding research programs on surfaces, interfaces and multilayers. As a result, neutron reflectometry was quickly recognized as one of the most powerful tools for characterizing surface phenomena or buried interfaces, and reflectometers were put into operation at all major neutron scattering facilities throughout the world.

Felcher has continued this record of creativity throughout his career, most recently achieving the first successful demonstration of the use of neutron spin-echo in grazing incidence geometry as a way of measuring surface inhomogeneity with enhanced resolution and flux. Felcher received his d*ottore in fisica* from the University of Milano, Italy in 1958. He worked at Argonne National Laboratory for more than 40 years, ultimately as senior physicist in the Materials Science Division before his retirement in 2007.

Presentation: Probing Surfaces and Interfaces with Neutrons
Tuesday | 9:30 am – 10:00 am

This talk will be presented by Suzanne te Velthuis on behalf of Felcher.

PRIZE FOR OUTSTANDING STUDENT RESEARCH

Claire White Los Alamos National Laboratory

for pioneering a new methodology to elucidate accurate structural representations of complex materials by combining neutron diffraction and computational chemistry

Founded in 2011, this inaugural award honors outstanding accomplishments in the general area of neutron scattering by graduate or undergraduate students.

Ordinary Portland cement-based (OPC) concrete is the most-used building material worldwide and is the second-most-used resource, after water. However, concrete is the third highest CO_2 emitter, accounting for 5-8% of all man-made emissions. Therefore, there is massive scope for technological development of alternative concretes. **CLAIRE WHITE** pioneered a new methodology to elucidate accurate structural representations of complex materials by combining neutron diffraction and computational chemistry. She used the disordered aluminosilicate material, metakaolin, an alternative cement precursor, as the case study, with the methodology revealing the existence of III-coordinated aluminum, which has never before been shown to exist in this material. This research exemplified the power of combining local structural data (i.e., neutron pair distribution function analysis) with first-principles calculations for amorphous materials, especially when used in an iterative manner to maintain thermodynamic feasibility and agreement with experimental data.

White has also been heavily involved in technique development with respect to incoherent scattering and neutron pair distribution function analysis. For hydrogen and other incoherent scattering elements, the neutron pair distribution function technique is greatly affected, reducing the ability to obtain high quality PDFs. During her graduate studies, White participated extensively in the development of new tools capable of subtracting out the incoherent scattering component of total scattering data.

White graduated from The University of Melbourne in 2010, and is currently a Director's Postdoctoral Fellow at Los Alamos National Laboratory, with a joint appointment involving the Lujan Neutron Scattering Center and the Theoretical Division. Her research involves combining theoretical and experimental techniques to advance the understanding of low CO_2 cements (geopolymers) and associated materials. She is active in the area of technique development and is constructing novel methodologies combining experimental data and simulations.

Presentation: Recent Progress in Elucidating Accurate Structural Representations of Disordered Complex Materials
Wednesday | 9:00 am – 9:30 am

DAILY SCHEDULE OF EVENTS

SUNDAY, JUNE 24

Registration.....12:00 pm – 8:00 pm
South Gallery Foyer

Tutorial: Advances in Time-of-Flight Powder Diffraction..... 1:00 pm – 5:00 pm
Room D

Tutorial: Novel Techniques for Small Angle Neutron Scattering..... 1:00 pm – 5:00 pm
Room E

Welcome Reception ..... 5:00 pm – 8:00 pm
Room C/F/H

Exhibit..... 5:00 pm – 8:00 pm
Room C/F/H

Join us for this year's

CONFERENCE BANQUET

TUESDAY, JUNE 26 | 7:00 pm – 9:00 pm | ROOM G

$75.00 per person
Tickets available at Registration Desk

Robert D. Shull
National Institute of Standards and Technology

A Memoir of Clifford G. Shull, Neutron Scattering at the Beginning

Sam Werner
National Institute of Standards and Technology

The Founding of NASA 20 Years Ago

MONDAY, JUNE 25

Registration.....7:30 am – 7:30 pm
South Gallery Foyer

A1: Plenary/Prize Lectures.....8:20 am – 10:00 am
Room G

Break ..... 10:00 am – 10:30 am
Room C/F/H

Exhibit..... 10:00 am – 10:30 am
Room C/F/H

B1: Instrumentation for Large Structures and Long Time Scales..... 10:30 am – 12:15 pm
Room A/B

D1: High-Tc Spin Dynamics and Superconducting Resonance..... 10:30 am – 12:15 pm
Room G

E1: Biomembranes..... 10:30 am – 12:00 pm
Room D/E

G1: Mechanical Behavior of Structural Materials..... 10:30 am – 12:15 pm
Room 5/6

Lunch (Not provided by Conference) ..... 12:15 pm – 1:45 pm

Poster Authors Set-up .....1:00 pm – 6:00 pm
Room C/F/H

B2: Instrumentation - New Techniques.....1:45 pm – 3:30 pm
Room G

C1: Polyelectrolytes and Water Soluble Polymers .....1:45 pm – 3:30 pm
Room D/E

F1: Absorption and Separation, MOFs and Zeolites .....1:45 pm – 3:30 pm
Room A/B

G2: Energy Conversion Materials.....1:45 pm – 3:30 pm
Room 5/6

Break .....3:30 pm – 4:00 pm
Room C/F/H

Exhibit.....3:30 pm – 4:00 pm
Room C/F/H

C2: Lipids and Membranes.....4:00 pm – 5:30 pm
Room D/E

D2: Magnetism of Nanostructured Materials .....4:00 pm – 5:30 pm
Room G

F2: Local Structure .....4:00 pm – 5:30 pm
Room A/B

H1: Neutron Physics I .....4:00 pm – 5:15 pm
Room 5/6

Poster Session - General Viewing.....6:00 pm – 7:30 pm
Room C/F/H

Exhibit.....6:00 pm – 7:30 pm
Room C/F/H

TUESDAY, JUNE 26

Registration.....7:30 am – 7:30 pm
South Gallery Foyer

A2: Prize/Plenary Lectures; Award Presentations and Introduction of Fellows.....8:15 am – 10:00 am
Room G

Break ..... 10:00 am – 10:30 am
Room C/F/H

Exhibit..... 10:00 am – 10:30 am
Room C/F/H

B3: Sources and Detectors..... 10:30 am – 12:15 pm
Room A/B

C3: Confined and Porous Systems..... 10:30 am – 12:15 pm
Room D/E

D3: Superconductivity ..... 10:30 am – 12:15 pm
Room G

G3: High Temperature and Radiation Resistant Materials..... 10:30 am – 12:15 pm
Room 5/6

Lunch (Not provided by Conference) ..... 12:15 pm – 1:45 pm

Poster Authors Set-up .....1:00 pm – 3:30 pm
Room C/F/H

D4: Control of Bulk Properties Through Materials Engineering .....1:45 pm – 3:00 pm
Room G

E2: Protein Structure and Assocations .....1:45 pm – 3:00 pm
Room D/E

F3: Neutron Spectroscopic Studies of New Materials.....1:45 pm – 3:00 pm
Room A/B

H2: Neutron Physics II .....1:45 pm – 3:00 pm
Room 5/6

Break .....3:00 pm – 3:30 pm
Room C/F/H

Exhibit.....3:00 pm – 5:30 pm
Room C/F/H

Poster Session - General Viewing.....3:30 pm – 5:30 pm
Room C/F/H

Conference Banquet.....7:00 pm – 9:00 pm
Room G

WEDNESDAY, JUNE 27

Registration.....7:30 am – 7:30 pm
South Gallery Foyer

A3: Prize/Plenary Lectures and Outstanding Student Poster Announcement....8:30 am – 10:00 am
Room G

Break ..... 10:00 am – 10:30 am
Room C/F/H

Exhibit..... 10:00 am – 10:30 am
Room C/F/H

B4: Optics and Polarization ..... 10:30 am – 12:15 pm
Room A/B

C4: Complex Fluids and Gels ..... 10:30 am – 12:15 pm
Room D/E

D5: Multiferroics and Complex Oxides ..... 10:30 am – 12:15 pm
Room G

F4: Structural Studies..... 10:30 am – 12:15 pm
Room 5/6

Lunch (Not provided by Conference) ..... 12:15 pm – 1:45 pm

Poster Authors Set-up .....1:00 pm – 6:00 pm
Room C/F/H

C5: Polymers and Films .....1:45 pm – 3:30 pm
Room D/E

D6: Frustrated and Novel Magnetism.....1:45 pm – 3:30 pm
Room G

E3: Stability and Dynamics .....1:45 pm – 3:30 pm
Room 5/6

G4: Energy Storage Materials.....1:45 pm – 3:15 pm
Room A/B

Break .....3:30 pm – 4:00 pm
Room C/F/H

Exhibit.....3:30 pm – 4:00 pm
Room C/F/H

B5: Software for Neutron Data Anyalsis.....4:00 pm – 5:30 pm
Room A/B

C6: Particle-Containing and Clustered Systems ..4:00 pm – 5:30 pm
Room D/E

D7: Lattice Dynamics .....4:00 pm – 5:30 pm
Room G

E4: General Topics.....4:00 pm – 5:30 pm
Room 5/6

Poster Session - General Viewing.....6:00 pm – 7:30 pm
Room C/F/H

Exhibit.....6:00 pm – 7:30 pm
Room C/F/H

THURSDAY, JUNE 28

Registration.....7:30 am – 10:00 am
South Gallery Foyer

NIST - NCNR Tour ..... 8:00 am – 1:30 pm

ADVANCED SIGN-UP WAS REQUIRED

- Continental Breakfast **at 8:00 am for Tour Participants ONLY**
- Buses will leave from Georgetown University **at 9:00 am**
- Tour is from **10:00 am – 12:00 pm**
- Buses will return to Georgetown University **at approx. 1:30 pm**

Transportation Assistance from NIST to Airport will be available up request.

TUTORIALS

SUNDAY, JUNE 24

Advances in Time-of-Flight Powder Diffraction | Room D

This tutorial will give a practical overview of the current state of the art in time-of-flight neutron powder diffraction. Topics include an introduction to powder diffraction and the pair distribution function analysis. These two introductory talks are followed by practical examples employing stroboscopic measurement as well as parametric studies.

Chair **Ashfia Huq** Oak Ridge National Laboratory

1:00 pm – 1:45 pm	Introduction to TOF Powder Diffraction **Ashfia Huq** Oak Ridge National Laboratory
1:45 pm – 2:30 pm	Introduction to Pair Distribution Function analysis **Emil Bozin** Brookhaven National Laboratory
2:30 pm – 3:00 pm	Break
3:00 pm – 3:45 pm	TOF Event data and stroboscopic diffraction measurements **Ke An** Oak Ridge National Laboratory
3:45 pm – 4:30 pm	Parametric neutron powder diffraction **Speaker to be Determined**
4:30 pm	Open discussion

Novel Techniques for Small Angle Neutron Scattering | Room E

This tutorial will highlight some of the novel, cutting edge advances in small-angle neutron scattering (SANS). It will feature four topics: rheological SANS under shear (RHEO-SANS), time-resolved SANS (TISANE), polarization analyzed SANS (PASANS) for magnetic systems, and SASSIE, an adaptable computational suite for solving complex structures. These lectures will include a lively mixture of experimental highlights, theory, supporting software, and practical hands-on information. The lecturers are expert users, and attendees are encouraged to engage them. There will be time set aside for lengthy discussion during the coffee break and the final open discussion period.

Chair **Kathryn Krycka** NIST Center for Neutron Research

1:00 pm – 1:05 pm	Brief Introduction **Kathryn Krycka** NIST Center for Neutron Research
1:05 pm – 1:50 pm	Rheo-SANS: Rheology and Shear Cells Designed for SANS **Norman Wagner** University of Delaware
1:50 pm – 2:35 pm	TISANE: Time-Resolved Small Angle Neutron Scattering **Roland Gähler** Institut Laue-Langevin
2:35 pm – 3:00 pm	Break
3:00 pm – 3:45 pm	Polarization Analysis: Resolving Structural and Magnetic Scattering **Mike Fitzsimmons** Los Alamos National Laboratory
3:45 pm – 4:30 pm	SASSIE: Computation for Complex Structures **Hailiang Zhang** NIST Center for Neutron Research **Nick Clark** NIST Center for Neutron Research
4:30 pm	Open discussion

ORAL PRESENTATIONS AT-A-GLANCE

MONDAY, JUNE 25

Room A/B	Room D/E	Room G	Room 5/6
		Welcome 8:20 am – 8:30 am A1.1 Altaf Carim* 8:30 am – 9:00 am A1.2 Guangyong Xu* 9:00 am – 9:30 am A1.3 Timothy Lodge* 9:30 am – 10:00 am	
BREAK 10:00 am – 10:30 am			
B: SOURCES, INSTRUMENTATION & SOFTWARE	**E: BIOLOGY**	**D: HARD CONDENSED MATTER**	**G: ENERGY & ENGINEERING APPLICATIONS**
B1.1 Rana Ashkar* 10:30 am – 11:00 am B1.2 Michael Ohl 11:00 am – 11:15 am B1.3 Dazhi Liu 11:15 am – 11:30 am B1.4 Christopher Stanley 11:30 am – 11:45 am B1.5 Daniel Yen 11:45 am – 12:00 pm B1.6 Daniel Hussey 12:00 pm – 12:15 pm	E1.1 Thad Harroun* 10:30 am – 11:00 am E1.2 Bulent Akgun 11:00 am – 11:15 am E1.3 Hirsh Nanda 11:15 am – 11:30 am E1.4 Mohan Boggara 11:30 am – 11:45 am E1.5 Clare Armstrong 11:45 am – 12:00 pm	D1.1 Pengcheng Dai* 10:30 am – 11:00 am D1.2 John-Paul Castellan 11:00 am – 11:15 am D1.3 Mark Lumsden 11:15 am – 11:30 am D1.4 John Tranquada 11:30 am – 11:45 am D1.5 Michael Norman* 11:45 am – 12:15 pm	G1.1 Sean Agnew* 10:30 am – 11:00 am G1.2 Mohamed Shamma 11:00 am – 11:15 am G1.3 Adam Creuziger 11:15 am – 11:30 am G1.4 Peter Liaw 11:30 am – 11:45 am G1.5 Nina Lane 11:45 am – 12:00 pm G1.6 Alexandru Stoica 12:00 pm – 12:15 pm
LUNCH 12:15 pm – 1:45 pm			
F: CHEMISTRY	**C: SOFT CONDENSED MATTER**	**B: SOURCES, INSTRUMENTATION & SOFTWARE**	**G: ENERGY & ENGINEERING APPLICATIONS**
F1.1 Raul Lobo* 1:45 pm – 2:15 pm F1.2 A. Ramirez-Cuesta 2:15 pm – 2:30 pm F1.3 Wendy Queen 2:30 pm – 2:45 pm F1.4 Matthew Hudson 2:45 pm – 3:00 pm F1.5 Rachel Pollock 3:00 pm – 3:15 pm F1.6 Andrew Allen 3:15 pm – 3:30 pm	C1.1 Jann Maranas* 1:45 pm – 2:15 pm C1.2 Bin Wu 2:15 pm – 2:30 pm C1.3 Changwoo Do 2:30 pm – 2:45 pm C1.4 Lilin He 2:45 pm – 3:00 pm C1.5 Kunlun Hong 3:00 pm – 3:15 pm C1.6 Zheng Yi 3:15 pm – 3:30 pm	B2.1 Mark Bird* 1:45 pm – 2:15 pm B2.2 Oleksandr Prokhnenko 2:15 pm – 2:30 pm B2.3 Ke An* 2:30 pm – 3:00 pm B2.4 Jose Rodriguez-Rivera 3:00 pm – 3:15 pm B2.5 Barry Winn 3:15 pm – 3:30 pm	G2.1 Jihui Yang* 1:45 pm – 2:15 pm G2.2 David Bucknall 2:15 pm – 2:30 pm G2.3 Steven DeCaluwe 2:30 pm – 2:45 pm G2.4 Adam Moule 2:45 pm – 3:00 pm G2.5 Brent Fultz* 3:00 pm – 3:30 pm
BREAK 3:30 pm – 4:00 pm			
F: CHEMISTRY	**C: SOFT CONDENSED MATTER**	**D: HARD CONDENSED MATTER**	**H: NEUTRON PHYSICS**
F2.1 Andrew Wills* 4:00 pm – 4:30 pm F2.2 Ram Seshadri* 4:30 pm – 5:00 pm F2.3 Margit Fabian 5:00 pm – 5:15 pm F2.4 Antonio Faraone 5:15 pm – 5:30 pm	C2.1 Ramanan Krishnamoorti* 4:00 pm – 4:30 pm C2.2 Kevin Diehn 4:30 pm – 4:45 pm C2.3 Andrea Woodka 4:45 pm – 5:00 pm C2.4 Mu-Ping Nieh 5:00 pm – 5:15 pm C2.5 Takumi Hawa 5:15 pm – 5:30 pm	D2.1 Chris Leighton* 4:00 pm – 4:30 pm D2.2 Alexander Grutter 4:30 pm – 4:45 pm D2.3 Yaohua Liu 4:45 pm – 5:00 pm D2.4 Kai Liu* 5:00 pm – 5:30 pm	H1.1 Chen-Yu Liu* 4:00 pm – 4:30 pm H1.2 Ruediger Picker* 4:30 pm – 5:00 pm H1.3 Christopher Lavelle 5:00 pm – 5:15 pm
POSTER SESSION | ROOM C/F/H 6:00 pm – 7:30 pm			

* Invited

ORAL PRESENTATIONS AT-A-GLANCE

TUESDAY, JUNE 26

Room A/B	Room D/E	Room G	Room 5/6
		Award Presentations 8:15 am – 8:30 am A2.1 Robert Birgeneau* 8:30 am – 9:15 am **Introduction for NSSA Fellows** 9:15 am – 9:30 am A2.2 Suzanne te Velthuis* 9:30 am – 10:00 am	
BREAK 10:00 am – 10:30 am			
B: SOURCES, INSTRUMENTATION & SOFTWARE	**C: SOFT CONDENSED MATTER**	**D: HARD CONDENSED MATTER**	**G: ENERGY & ENGINEERING APPLICATIONS**
B3.1 David Baxter* 10:30 am - 11:00 am	C3.1 Sow-Hsin Chen* 10:30 am - 11:00 am	D3.1 Daniel Pratt* 10:30 am - 11:00 am	G3.1 Zhili Feng* 10:30 am - 11:00 am
B3.2 Thomas Huegle 11:00 am - 11:15 am	C3.2 Souleymane Diallo 11:00 am - 11:15 am	D3.2 Stephen Wilson 11:00 am - 11:15 am	G3.2 Peng Wang 11:00 am - 11:15 am
B3.3 Nicholas Maliszewskyj* 11:15 am - 11:45 am	C3.3 Timothy Prisk 11:15 am - 11:30 am	D3.3 Efrain Rodriguez 11:15 am - 11:30 am	G3.3 Ken Littrell 11:15 am - 11:30 am
B3.4 Jacob McComb 11:45 am - 12:00 pm	C3.4 Brad Lokitz 11:30 am - 11:45 am	D3.4 Andreas Kreyssig 11:30 am - 11:45 pm	G3.4 Bjorn Clausen 11:30 am - 11:45 am
B3.5 Lowell Crow 12:00 pm - 12:15 pm	C3.5 Saurabh Singh 11:45 am - 12:00 pm	D3.5 Dmitry Reznik 11:45 am - 12:00 pm	G3.5 Sophie Voisin 11:45 am - 12:00 pm
	C3.6 Narayn Das 12:00 pm - 12:15 pm	D3.6 Morten Eskildsen 12:00 pm - 12:15 pm	G3.6 Qian Li 12:00 pm - 12:15 pm
LUNCH 12:15 pm – 1:45 pm			
F: CHEMISTRY	**E: BIOLOGY**	**D: HARD CONDENSED MATTER**	**H: NEUTRON PHYSICS**
F3.1 Emil Bozin* 1:45 pm - 2:15 pm	E2.1 Isidro (Dan) Zarraga* 1:45 pm - 2:15 pm	D4.1 Yumi Ijiri* 1:45 pm - 2:15 pm	H2.1 Michael Huber* 1:45 pm - 2:15 pm
F3.2 Alexander Kilesnikov 2:15 pm - 2:30 pm	E2.2 Frank Heinrich 2:15 pm - 2:30 pm	D4.2 Matthew Stone 2:15 pm - 2:30 pm	H2.2 Joachim Nsofini 2:15 pm - 2:30 pm
F3.3 Andrew Hicks 2:30 pm - 2:45 pm	E2.3 Eric Yearley 2:30 pm - 2:45 pm	D4.3 Hye Kang 2:30 pm - 2:45 pm	H2.3 Ronald Cappelletti 2:30 pm - 2:45 pm
F3.4 Nina Verdal 2:45 pm - 3:00 pm	E2.4 Kushol Gupta 2:45 pm - 3:00 pm	D4.4 Qingzhen Huang 2:45 pm - 3:00 pm	H2.4 Neveen Shlayan 2:45 pm - 3:00 pm
BREAK 3:00 pm – 3:30 pm			
POSTER SESSION | ROOM C/F/H 3:30 pm – 5:30 pm			

* Invited

Mark Your Calendar For ICNS

WEDNESDAY, JUNE 27

Room A/B	Room D/E	Room G	Room 5/6
		Introductions 8:30 am – 8:35 am A3.1 **Yasuhiko Fujii*** 8:35 am – 8:50 am **Outstanding Student Poster Prize Announcement** 8:50 am – 9:00 am A3.2 Claire White* 9:00 am – 9:30 am A3.3 Leon Balents* 9:30 am – 10:00 am	
BREAK 10:00 am – 10:30 am			
B: SOURCES, INSTRUMENTATION & SOFTWARE	**C: SOFT CONDENSED MATTER**	**D: HARD CONDENSED MATTER**	**F: CHEMISTRY**
B4.1 Wangchun Chen* 10:30 am – 11:00 am	C4.1 Danilo Pozzo* 10:30 am – 11:00 am	D5.1 William Ratfliff* 10:30 am – 11:00 am	F4.1 Mario Bieringer* 10:30 am – 11:00 am
B4.2 Xin Tong 11:00 am – 11: 15 am	C4.2 Norman Wagner 11:00 am – 11:15 am	D5.2 Jaehong Jeong 11:00 am – 11:15 am	F4.2 Jing-Tai Zhao 11:00 am – 11:15 am
B4.3 Qiang Ye 11:15 am – 11:30 am	C4.3 Andrew Jackson 11:15 am – 11:30 am	D5.3 Jae-Ho Chung 11:15 am – 11:30 am	F4.3 Ashfia Huq* 11:15 am – 11:45 am
B4.4 William Hamilton 11:30 am – 11:45 am	C4.4 Hyuntaek Oh 11:30 am – 11:45 am	D5.4 Eduardo Granado 11:30 am – 11:45 am	F4.4 Jason Simmons 11:45 am – 12:00 pm
B4.5 Todd Sherline 11:45 am – 12:00 pm	C4.5 Monika Hartl 11:45 am – 12:00 pm	D5.5 Stuart Calder 11:45 am – 12:00 pm	F4.5 Peng Wang 12:00 pm – 12:15 pm
B4.6 Jack Robertson 12:00 pm – 12:15 pm	C4.6 Hideki Seto 12:00 pm – 12:15 pm	D5.6 Joel Helton 12:00 pm – 12:15 pm	
LUNCH 12:15 pm – 1:45 pm			
G: ENERGY & ENGINEERING APPLICATIONS	**C: SOFT CONDENSED MATTER**	**D: HARD CONDENSED MATTER**	**E: BIOLOGY**
G4.1 John Tse* 1:45 pm – 2:15 pm	C5.1 Xiaohua Zhang 1:45 pm – 2:00 pm	D6.1 Seung-Hun Lee* 1:45 pm – 2:15 pm	E3.1 Christopher Roberts* 1:45 pm – 2:15 pm
G4.2 Abhijit Pramanick 2:15 pm – 2:30 pm	C5.2 Ralf Koehler 2:00 pm – 2:15 pm	D6.2 Yang Zhao 2:15 pm – 2:30 pm	E3.2 Liang Hong 2:15 pm – 2:30 pm
G4.3 Michael Lerche 2:30 pm – 2:45 pm	C5.3 Manish Kulkarni 2:15 pm – 2:30 pm	D6.3 Katharina Fritsch 2:30 pm – 2:45 pm	E3.3 Haskell Taub 2:30 pm – 2:45 pm
G4.4 Howard Wang 2:45 pm – 3:00 pm	C5.4 Chris Garvey 2:30 pm – 2:45 pm	D6.4 Travis Williams 2:45 pm – 3:00 pm	E3.4 Sung-Min Choi 2:45 pm – 3:00 pm
G4.5 Joseph Dura 3:00 pm – 3:15 pm	C5.5 Madhu Sudan Tyagi 2:45 pm – 3:00 pm	D6.5 Marc Janoschek* 3:00 pm – 3:30 pm	E3.5 Melissa Sharp 3:00 pm – 3:15 pm
	C5.6 Hyungjin Lee 3:00 pm – 3:15 pm		E3.6 Yinglong Mia 3:15 pm – 3:30 pm
BREAK 3:30 pm – 4:00 pm			
B: SOURCES, INSTRUMENTATION & SOFTWARE	**C: SOFT CONDENSED MATTER**	**D: HARD CONDENSED MATTER**	**E: BIOLOGY**
B5.1 Brian Maranville 4:00 pm – 4:15 pm	C6.1 Vivek Prabhu* 4:00 pm – 4:30 pm	D7.1 Douglas Abernathy 4:00 pm – 4:15 pm	E4.1 Susan Krueger 4:00 pm – 4:15 pm
B5.2 Konstantin Berlin 4:15 pm – 4:30 pm	C6.2 Yun Liu 4:30 pm – 4:45 pm	D7.2 Olivier Delaire 4:15 pm – 4:30 pm	E4.2 Tatiana Perevozchikova 4:15 pm – 4:30 pm
B5.3 Mathieu Doucet* 4:30 pm – 5:00 pm	C6.3 Adam Washington 4:45 pm – 5:00 pm	D7.3 Chen Li 4:30 pm – 4:45 pm	E4.3 Sylvia Junghans 4:30 pm – 4:45 pm
B5.4 Raymond Osborn 5:00 pm – 5:15 pm	C6.4 Matthew Barrett 5:00 pm – 5:15 pm	D7.4 Adam Aczel 4:45 pm – 5:00 pm	E4.4 Silddharth Shenoy 4:45 pm – 5:00 pm
B5.5 Andrei Savici 5:15 pm – 5:30 pm	C6.5 Saurabh Singh 5:15 pm – 5:30 pm	D7.5 Louis Santodonato 5:00 pm – 5:15 pm	E4.5 Mathias Loesche 5:00 pm – 5:15 pm
		D7.6 Henry Glyde 5:15 pm – 5:30 pm	E4.6 Xiang-qiang Chu 5:15 pm – 5:30 pm
POSTER SESSION | ROOM C/F/H 6:00 pm – 7:30 pm			

POSTER PRESENTATIONS AT-A-GLANCE

Poster Authors Set-up

Monday 1:00 pm - 6:00 pm
Tuesday 1:00 pm - 3:30 pm
Wednesday 1:00 pm - 6:00 pm

General Viewing | Room CHF

Monday 6:00 pm - 7:30 pm
Tuesday 3:30 pm - 5:30 pm
Wednesday 6:00 pm - 7:30 pm

MONDAY, JUNE 25

PAPER #	PRESENTER
BP1.1	Thomas Huegle
BP1.2	Melissa Sharp
BP1.3	Michael Fleenor
BP1.4	Sangjin Lee
BP1.5	Alexander Deyhim
BP1.6	John Barker
BP1.7	Carrie Y. Gao
CP1.1	Jung Min Kim
CP1.2	Kathleen Weigandt
CP1.3	Nestor Valadez-Perez
CP1.4	Paul Godfrin
CP1.5	Rana Ashkar
CP1.6	Sameer Sathaye
CP1.7	Marilia do Rego barros
CP1.8	Andrea Woodka
DP1.1	Liam O'Brien
DP1.2	Brian Kirby
DP1.3	Gary Mankey
DP1.4	Igor Zaliznyak
DP1.5	Jian Yu
DP1.6	Paula Lampen
DP1.7	Kathryn Krycka
DP1.8	Liza Hashim
DP1.9	Steven Spurgeon
DP1.10	Binod Rai
DP1.11	Daniel Pajerowski
DP1.12	Huibo Cao
DP1.13	Jooseop Lee
DP1.14	Zhijun Xu
EP1.1	Chris Garvey
EP1.2	William Heller
EP1.3	Ella Mihailescu
EP1.4	Laura Toppozini
EP1.5	John Katsaras
EP1.6	Jianjun Pan
EP1.7	David Worcester
FP1.1	Brian Frederick
FP1.2	Minzhong Xu
FP1.3	Monika Hartl
FP1.4	Ebru Kizilay
GP1.1	Liwei Huang
GP1.2	Changwoo Do
GP1.3	Lalitha Ganapatibhotla
GP1.4	Jim Browning
GP1.5	Jose Banuelos
GP1.6	Amal Al-wahish

TUESDAY, JUNE 26

PAPER #	PRESENTER
BP2.1	Haitham Abdel Majid
BP2.2	Sangjin Lee
BP2.3	Lisa DeBeer-Schmitt
BP2.4	Peng Wang
BP2.5	Richard Weber
BP2.6	Rebecca Mills
BP2.7	Wangchun Chen
BP2.8	Daniel Brown
BP2.9	Chenyang Jiang
BP2.10	Melissa Sharp
CP2.1	Wei-Shan Chiang
CP2.2	Christopher Bertrand
CP2.3	Dongcui Li
CP2.4	Gregory Newbloom
CP2.5	Jeffrey Richards
CP2.6	Jiahua Zhu
CP2.7	Jungjy Ryu
DP2.1	Yaohua Liu
DP2.2	Gary Mankey
DP2.3	Brian Maranville
DP2.4	Gregory Tucker
DP2.5	Sachith Dissanayake
DP2.6	Kemp Plumb
DP2.7	Stephen Daunheimer
DP2.8	Ryan Morrow
DP2.9	Binod Rai
DP2.10	G. Granroth
DP2.11	Jerod Wagman
DP2.12	Robert McQueeney
DP2.13	Jagat Lamsal
DP2.14	Timothy Prisk
EP2.1	Zvi Kelman
EP2.2	Amit Vaish
EP2.3	Joon Ho Roh
EP2.4	Derya Vural
EP2.5	Ann S. Junghans
EP2.6	Sylvia Junghans
FP2.1	Nathan Hould
FP2.2	Nathaniel Bass
FP2.3	Harshita Kumari
GP2.1	Wei Chen
GP2.2	Brett Guralnick
GP2.3	Hao Shen
GP2.4	Wenluan Zhang
GP2.5	David Jacobson
HP1.1	Alexander Deyhim
HP1.2	David Worcester

WEDNESDAY, JUNE 27

PAPER #	PRESENTER
BP3.1	X. Yang
BP3.2	Harley Skorpenske
BP3.3	Alexander Deyhim
BP3.4	Jinkui Zhao
BP3.5	Chun-Ming Wu
BP3.6	Wangchun Chen
BP3.7	Alexandre Ivanov
BP3.8	Richard Azuah
BP3.9	Ken Littrell
CP3.1	Peter Holden
CP3.2	Aldona Rajewska
CP3.3	Andrew Miskowiec
CP3.4	Andrea Woodka
CP3.5	Zheng Yi
CP3.6	Saurabh Singh
CP3.7	Bulent Akgun
CP3.8	Antonio Faraone
CP3.9	Michihiro Nagao
CP3.10	Jong Keum
DP3.1	Chenyang Shi
DP3.2	Hillary Smith
DP3.3	Ioanna Bakaimi
DP3.4	Gregory MacDougall
DP3.5	Despina Louca
DP3.6	Andrey Podlesnyak
DP3.7	Chris Stock
DP3.8	Valery Kiryukhin
DP3.9	Kazuki Iida
DP3.10	Eugene Iolin
DP3.11	Victor Fanelli
DP3.12	Michael Loewenhaupt
DP3.13	Deepak Singh
DP3.14	Peng Wang
DP3.15	Henry Glyde
EP3.1	Vitalii Silin
EP3.2	Shih-Chun Huang
EP3.3	William O'Dell
EP3.4	Sylvia Junghans
GP3.1	Dong Ma
GP3.2	Peter Liaw
GP3.3	Lilin He
GP3.4	Xun-Li Wang

A: Plenary & Prize Sessions
B: Sources, Instrumentation & Software
C: Soft Condensed Matter
D: Hard Condensed Matter
E: Biology
F: Chemistry
G: Energy & Engineering Applications
H: Neutron Physics

SPECIAL THANKS

This conference has been funded, in part, by the generous contributions from these organizations:

Lujan Neutron Scattering Center
Los Alamos Neutron Science Center
lansce.lanl.gov/lujan

National Research Council Canada
Canadian Neutron Beam Centre
www.nrc-cnrc.gc.ca/cnbc

The Neutron Scattering Society of America
www.neutronscattering.org

NIST Center for Neutron Research
www.ncnr.nist.gov

Oak Ridge National Laboratory
Neutron Sciences Directorate
neutrons.ornl.gov

U.S. Department of Energy
Office of Basic Energy Sciences
science.energy.gov/bes

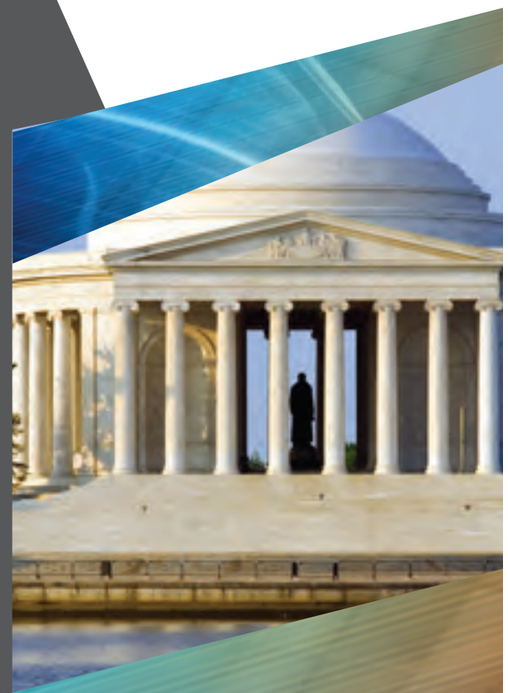
WELCOME TO THE ACNS 2012 EXHIBIT

Georgetown University Hotel and Conference Center
Room C/F/H

EXHIBIT HOURS

Sunday	5:00 pm	–	8:00 pm
Monday	10:00 am	–	10:30 am
	3:30 pm	–	4:00 pm
	6:00 pm	–	7:30 pm
Tuesday	10:00 am	–	10:30 am
	3:00 pm	–	5:30 pm
Wednesday	10:00 am	–	10:30 am
	3:30 pm	–	4:00 pm
	6:00 pm	–	7:30 pm

The ACNS 2012 Exhibit, held in conjunction with the conference, will feature displays from all sectors of the neutron science community. Convenient to the technical sessions and posters, attendees are encouraged to visit the exhibit displays to learn more about the latest products and services related to the neutron scattering field.



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LUJAN NEUTRON SCATTERING CENTER
Los Alamos Neutron Science Center (LANSCE)
Los Alamos National Laboratory
lansce.lanl.gov/lujan

Key Products: Neutron Scattering

The Lujan Center is a national user facility that offers access to eleven neutron scattering instruments and three nuclear physics instruments. Neutrons are produced by spallation using an 800 MeV proton beam at the LANSCE facility. Extreme environment capabilities include temperature, pressure, magnetic field, corrosion and stress. Focus areas include diffraction, total scattering, reflectometry, magnetism, polarized and small-angle scattering. 20Hz operation and liquid hydrogen moderators make the facility well suited for long wavelength applications. LANSCE hosts three other user facilities focused on nuclear physics, proton radiography and isotope production. Classified and proprietary research can be accommodated upon request. Funding for Lujan is provided by the DOE Office of Basic Energy Sciences.

NEUTRON SCATTERING SOCIETY OF AMERICA
www.neutronscattering.org

Key Products: American Conference of Neutron Scattering; Clifford G. Shull Prize in Neutron Science; Sustained Research and Science Prizes; Prize for Outstanding Student Research; Student Travel Awards

The Neutron Scattering Society of America (NSSA) was established in 1992 to provide a forum to discuss scientific issues, major facilities and instrumentation needed for world-class research in neutron scattering. The main goal of the Society is to stimulate, promote and broaden the use of neutron scattering in science, engineering and technology. The NSSA brings together and identifies the needs the neutron scattering community of the U.S.A. and carries out educational activities.

NIST CENTER FOR NEUTRON RESEARCH
www.ncnr.nist.gov

The NCNR operates 25 instrument stations providing thermal and cold neutrons to the largest community of neutron users in North America. Approximately 700 proposals were peer-reviewed in 2009 and 350 papers were published based on completed experiments. Research ranges from physical and life sciences to fundamental neutron physics, earth science and engineering. Cold neutron instruments are especially featured at the facility which is undergoing an expansion to a new guide hall that will host five new state-of-the-art instrument stations.

NRC CANADIAN NEUTRON BEAM CENTRE
Daniel.Banks@nrc-cnrc.gc.ca
www.nrc-cnrc.gc.ca/cnbc

Key Products: Research Facility; Fundamental and Applied Research

The National Research Council–Canadian Neutron Beam Centre (NRC-CNBC) enables researchers to use neutron beams as tools for world-class materials research, which provides new understandings of materials and improves products for businesses. Each year, over 200 scientists, engineers, and students from universities, government labs and industry participate in research that depends on access to its six neutron beamlines.

OAK RIDGE NATIONAL LABORATORY, NEUTRON SCIENCES DIRECTORATE
neutronusers@ornl.gov
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Invited Speaker Index

Name	Paper #	Session Title	Date	Time	Room
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Ashkar, Rana	*B1.1	B1: Instrumentation for Large Structures and Long Time Scales	Monday, June 25	10:30 am	Room A/B
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Bieringer, Mario	*F4.1	F4: Structural Studies	Wednesday, June 27	10:30 am	Room 5/6
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