2017 Gordon Research Conference on Neutron Scattering
Hong Kong University of Science and Technology, SAR, China August 6 -11

Bruce D. Gaulin (McMaster University, Canada), Chair
Masatoshi Arai (European Spallation Source, Sweden), Vice Chair

Sunday, August 6

Session 1: Evening
New Materials and Neutron Sciences Facilities: Past, Present and Future
Masatoshi Arai (European Spallation Source), Discussion Leader
7:40 PM – Welcome: Bruce Gaulin (McMaster University, Chair)
7:50 PM – Robert McGreevey * (STFC, UK)
Forefront Neutron Scattering Enabling Our Understanding of New Materials
8:30 PM - Paul Langan (Spallation Neutron Source, USA) *Innovative Neutron Scattering Capabilities at Oak Ridge for Solving Cutting Edge Research Problems*

Monday, August 7

Session 2: Morning
New Magnetic Materials
Stephen Nagler (ORNL, USA) and Jun Zhao (Fudan University, China), Discussion Leaders
9:00 AM Lucy Clark (University of Liverpool, UK)
New Realizations of Frustrated Spin Systems
9:40 AM Taku Sato (University of Tokyo, Japan)
Magnons in Noncentrosymmetric Magnets
10:20 AM - Coffee Break
10:50 AM Kirrily Rule (ANSTO, Australia)
Neutron Scattering as a Tool for Investigating Low Dimensional Quantum Magnets
11:30 AM Christian Pfleiderer (Technical University of Munich, Germany)
Stability of Skyrmion Lattices in Chiral Magnets

Session 3: Evening
Soft and Polymeric Materials
Victoria Garcia Sakai (ISIS, UK) and Yilong Han (Hong Kong University of Science and Technology, SAR, China), Discussion Leaders
7:30 PM Elliot Gilbert (ANSTO, Australia)
QUOKKA's Guide to Food (and Non-Food) Structure
8:10 PM Sung-Min Choi (KAIST, South Korea) *Soft Matter Guided Formation of Hierarchical Nanoparticle Superlattices: Small Angle Scattering Studies*
8:50 PM Mitsuhiro Shibayama (University of Tokyo, Japan)
Neutron Scattering of Model Polymer Networks

Tuesday, August 8

Session 4: Morning
Thermoelectric and New Energy Materials
Katharina Fritsch (Helmholtz Zentrum Berlin, Germany) and Evvy Kartini (BATAN, Indonesia), Discussion Leaders
9:00 AM Olivier Delaire (Duke University, USA) *Neutron Scattering and Simulations of Phonons in Thermoelectrics: Thermal Transport, Strong Anharmonicity, and Emergent Quasiparticles*
9:40 AM Andrew Goodwin (University of Oxford, UK)
Crafting Phonons with Correlated Disorder
10:20 AM Coffee Break
10:50 AM Craig Brown (NIST, USA)
Probing Small Molecule Adsorption in Microporous Materials Using Neutron Scattering
11:30 am Jie Ma (Shanghai Jiao Tong University, China) *Neutron Scattering Study of the* Phonon Scattering Mechanism in the IV-VI *Rocksalt Alloys and Complicated Oxides*

Session 5: Evening
Disordered and Engineering Materials
Yuntao Liu (CARR, China) Discussion Leader
4:00 PM Claire White (Princeton University, USA) *Uncovering the Atomic Structure and Mesoscale Morphology of Amorphous Materials by Combining Multiscale Simulations and Neutron Scattering*
4:40 PM Xun-Li Wang (City University of Hong Kong, Hong Kong SAR China)
In-Situ Study of Deformation Mechanisms in High-Entropy Alloys
5:20 PM Ron Rogge (Canadian Nuclear Laboratories)
Seeing the Unseen: Using Neutrons to Solve Problems and Mysteries

Wednesday, August 9

Session 6: Morning
Superconducting and Topological Materials
Ray Osborne (Argonne National Laboratory, USA) and Wei Bao (Renmin University, China) Discussion Leaders
9:00 AM Collin Broholm (John Hopkins University, USA)
The Continuing Story of Simple Cubic SmB6
9:40 AM Pengcheng Dai (Rice University, USA)
Spin, Lattice, and Orbital Coupling in Iron Pnictides
10:20 AM Coffee Break
10:50 AM Taka-Hisa Arima (University of Tokyo, Japan)
How to Observe Magnetic Skyrmions
11:30 AM Philippe Bourges (CEA, France)
Loop Currents in Superconducting Cuprates and Iridates

Session 7: Afternoon

Biological Materials

Dean Myles (Oak Ridge National Laboratory, USA), Discussion Leader

7:30 PM John Katsaras (ORNL, USA) *The In Vivo Structure of a Biological Membrane*

8:10 PM Antonio Benedetto (University College Dublin, Ireland, and Laboratory for Neutron Scattering and Imaging, Paul Scherrer Institute, Switzerland) *Biomolecules, Water, and Room-Temperature Ionic Liquids: Challenges and Opportunities in Basic Science and Applications*

8:50 PM Yun Liu (University of Delaware/NIST, USA) *Emerging Opportunities of Using Neutron Scattering to Study Protein Structures in Solutions*

Thursday, August 10

Session 8: Morning

The Role of Neutron Scattering in Materials Synthesis and Discovery

Bruce Gaulin (McMaster University, Canada), Discussion Leader

9:00 AM Hiroshi Kageyama (Kyoto University, Japan)
How to Use Neutron Sources to Explore Mixed-Anion Compounds

9:40 AM Geetha Balakrishnan (University of Warwick, UK)
Exploring New Frustrated Magnets

10:20 AM Coffee Break

10:50 AM Tyrel M. McQueen (John Hopkins University, USA)
A Synthetic Chemists Exploration of the Utility of Neutron Scattering

11:30 AM Athena Sefat (Oak Ridge National Laboratory, USA)
Recent Progress in Iron-Based Arsenides

Session 9: Afternoon

New Instrumentation Enabling New Science

Toby Perring (ISIS Neutron Source, UK) and Frank Klose (ANSTO, Australia), Discussion Leaders

4:00 PM Ken Andersen (European Spallation Source, Sweden)
ESS: The Next-Generation Neutron Source

4:40 PM Kenji Nakajima (Japan Proton Accelerator Research Complex, Japan)
New Opportunities of Neutron Sciences Provided by MLF, J-PARC

5:20 PM Helmut Schober (Institut Laue-Langevin, France) *A Tour of Recent Scientific Highlights Made Possible Thanks to ILL's Modernisation Programmes*

* to be confirmed