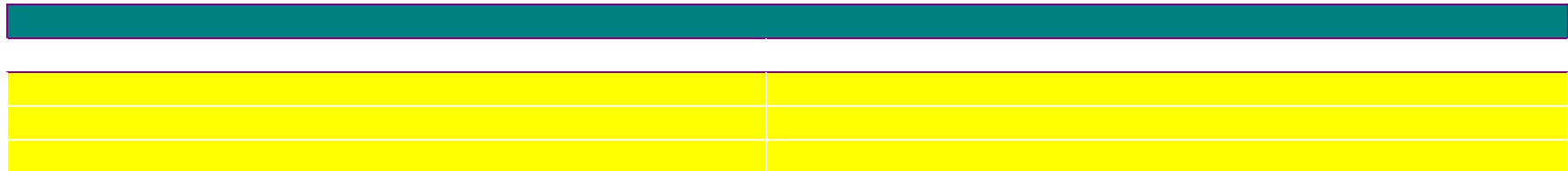


Program at a Glance

Revision: December 8th 2009



Saturday 6:15pm

SP.01 Plenary Lecture: V. Ramakrishnan
(University of Cambridge, England)

Sunday July 25, 2010

MORNING

AFTERNOON

AW.01 Fankuchen Award to David Watkin

(University of Oxford, England)

02.01 General Interest I (*General Interest*) – This session is for all broad crystallography that does not “fit” within the areas covered by the individual SIG’s – Chair: Bruce Noll

07.01 Membrane & Associated Proteins (*BioMac, SAS*) – Recent developments in using X-ray scattering and diffraction to determine the structures of membranes and to characterize their interaction with membrane-associated proteins and peptides –Chair: L Yang

01.01 Lighting the Way: In Memory of Louis Delbaere (*BioMac*) – A session to commemorate the work and honor the memory of Louis Delbaere, a passionate researcher, mentor, and pioneer in the field of protein X-ray crystallography – Chair: John Allingham

07.02 Non-ambient Environments for Specialized Experiments (*Powder, Small Mol, Mats*) – Diffraction is a powerful, but sometimes challenging, tool for examining structure, structure-property relationships and chemical reactions as temperature, applied pressure and chemical environment are changed –Chairs: Angus Wilkinson, Christine Beavers

07.03 Software Integration & Databases (*BioMac, YS-SIG*) – This session will explore the use of databases in structure determination and the continued integration of software packages –. Chairs: Ed Collins, Peter Horanyi

07.04 Radiation Damage (*BioMac, Sync*) – X-ray damage, a major experimental complication in macromolecular crystallography, will be discussed from both the fundamental and practical perspectives. –Chairs: Janet Smith, James Holton

07.05 Local Structure (*Neutron, Powder, Mats*) – Recent successes and future directions in the application of total scattering analysis to the study of disordered materials. – Chairs: Thomas Proffen, Emil Bozin

07.06 Absolute Structure Determination; where are we now? (*Small Mol, Service*) – A discussion of the current methods for the determination of absolute structure from X-ray diffraction data – Chair: Joe Reibenspies

Monday July 26, 2010

MORNING

AFTERNOON

SP.02 Plenary Lecture: Solid-state Actinides: Some Crystal Chemistry and Crystallography. **Jim Ibers** (Northwestern University, USA)

TR.01 The First Element: in memory of Bob Bau (Transaction) (*All*) – A symposium to honor the memory of Bob Bau chemist, diffractionist, neutron scattering expert and promoter and will focus on research achievements and future of studies involving hydrogen, which featured prominently in Bob's path-breaking research. – Chairs: Christina Hoffman, Larry Falvello, Thomas Proffen, Nibuo Niimura

07.07 Surfaces & Interfaces (*SAS, Sync*) – Structure-property relationships of nanomaterial-polymer interfaces – Chair: Jim Browning

07.08 Automation & Data Collection (*BioMac, Indust, Sync, SAS*) – An overview of advanced methods and technologies that are being employed to increase the accessibility, capacity and efficiency of synchrotron beamlines while still maintaining, or even improving, the quality of the data. – Chair: Annie Héroux, Rick Walter

07.09 Fibril-forming Pathological Peptides: Prions, Amyloids & “Friends” (*Fiber, SAS, Sync*) – Attempts to understand the structural aspects and / or roles of these disease-associated fibrils through a range of techniques, including, but not limited to fiber diffraction. – Chair: Joseph Orgel

TR.01 The First Element: in memory of Bob Bau (Transaction) (*All*) – A symposium to honor the memory of Bob Bau chemist, diffractionist, neutron scattering expert and promoter and will focus on research achievements and future of studies involving hydrogen, which featured prominently in Bob's path-breaking research. – Chairs: Christina Hoffman, Larry Falvello, Thomas Proffen, Nibuo Niimura

07.10 Data Collection Strategies (*Service, Small Mol*) – Recent developments and experimental use of data collection strategies as well as tools and routines developed within crystallography centers to improve efficiency and success. – Chair: Chris Incarvito

07.11 Pushing the Envelope on SAXS: resolution, dynamics, complexity (*SAS, BioMac, Sync*) – This session highlights the increasing power of solution scattering to analyze structures of increasing complexity, and with improved resolution in space and time –Chair: Eaton Lattman

07.12 Exciting Structures (*BioMac, Can Div, YS-SIG*) – This session will sample many of the most exciting structures for oral presentations from submitted abstracts – Chair: Eric Ortlund

Tuesday July 27, 2010

MORNING

AFTERNOON

WK.02 Etter Early Career Award to Ray Treivel.

(University of Michigan, USA).

02.02 Etter Award Symposium (*General Interest, YS-SIG*) – Contributions from young scientists selected from contributed abstracts. – Chair: Ryan Jackson

07.13 Weird Materials (*Materials, Powder, SAS*) – This session will be featuring materials with intriguing behavior, which may tempt a scientist to call them "weird" when they first hear about their properties – Chair: Cora Lind

05.01 Cool Structures (*Small Mol*) – Any unusual, interesting, or unique structure that the author might think would be of interest to the audience. – Chair: Xiaoping Wang

01.02 Molecular Motors (*BioMac*) – Recent successes in determining the three-dimensional structure of molecular machines and motor proteins using X-ray crystallography and hybrid structural approaches – Chair: Francis Tsai

02.03 Blast from the Past: What was Old is New Again (*General Interest, Small Mol, YS-SIG*) – The presentation of well-established methods in crystal structure determination to a modern audience; how old and sometimes forgotten methods can be of great use in modern-day crystallography. – Chair: Peter Mueller

01.03 Longer Wavelength Phasing (*BioMac*) – Current methodological developments in the field of experimental phasing using longer X-ray wavelengths as well as some structural highlights will be presented. – Chairs: Manfred Weiss, BC Wang

03.01 New Developments in Fiber Diffraction: Cryo-, Micro-diffraction and Complementary Techniques (*Fiber*) – Contributions to technique development and structural studies of fibrous systems in the light of recent developments in techniques and facilities. – Chairs: Paul Langan, Joseph Orgel

07.14 Functional Materials (*Neutron, Materials, Powder*) – Structure-property aspects in advanced functional materials such as photovoltaics, thermoelectrics, magnetocalorifics, ferroics & multiferroics, and high- T_c superconductors – Chair: Jason Hodges

Tuesday July 27, 2010

EVENING

You may submit a second abstract to a daytime session if you submit one abstract to one of these two evening sessions.

07.15 Would you Publish This II? (*Service, General Interest, Small Mol*) – An interactive session to address how members of the small molecule community handle structures of moderate or poor quality and limited scientific interest – Chairs: Carla Slebodnick, Danielle Gray

07.16 What can your Beamline offer you? (*Neutron, Sync*)
– Speakers representing various Xray and neutron sources will inform the audience about what the beamlines have to offer, and how to access them.
– Chair: Ashfia Huq

Wednesday July 28, 2010

MORNING

AFTERNOON

SP.03 Plenary Lecture: Tom Steitz (Yale University, USA)

SP.04 Plenary Lecture: Ada Yonath (Weizmann Institute, Israel)

07.17 Incommensurately Modulated Materials (*Neutron, Powder, Materials*) – Recent successes in the structure determination of commensurate and incommensurate modulated structures – Chair: Olivier Gourdon

07.18 Macromolecules, Complexes & Assemblies (*BioMac, SAS*) – Recent research results on three dimensional structures of biological macromolecular complexes and assemblies using X-ray and neutron diffraction/scattering techniques as well as complementary methods such as cryo-electron microscopy and computational approaches. – Chairs: Hiro Tsurata, Ed Lattman

06.01 New Tools – New Lights (*Sync*) – New light sources and new techniques that are enabling new or better science using diffraction or other imaging methods – Chairs: Gerd Rosenbaum, Keith Moffat

07.19 Precipitates & Voids in Advanced Materials (*SAS, Materials, Neutron, Indust*) – The structure of precipitates and voids and nanoscale phase separation and its relation to the functional properties of advanced materials such as catalysts and high-strength or extreme-environment superalloys, ceramics, and composites – Chair: Ken Littrell

07.20 My First Modulated Structure (*Service, General Interest, Small Mol*) – Crystallographers who have recently begun to refine modulated structures are encouraged to present their results and the obstacles to achieve those results in this "nuts & bolts" session – Chair: Victor Young

07.21 Professional Odysseys (*YSSIG, Industrial, Can Div*) – A panel discussion involving participants engaged in a variety of crystallography-related careers, to give attendees an opportunity to learn about different professional avenues available to those with training in crystallography. – Chairs: Anna Gardberg, Megan Barker

07.22 Structural Insights into the Cause and Treatment of Cardiovascular Disease (*BioMac, Indust*) – Structural studies related to thrombosis, diabetes, hypertension, atherosclerosis and other biological systems related to cardiovascular disease. – Chairs: Holly Soutter, Barry Finzel

07.23 Energy-related Materials (*Materials, Powder*) – Materials for energy applications such as battery, hydrogen storage, thermoelectric and fuel cells – Chairs: Ashfia Huq, Taner Yildirim

Thursday July 29, 2010

MORNING

AFTERNOON

AW.03 Trueblood Award to Ton Spek (Utrecht University, Netherlands)

01.04 Structural Enzymology: Mechanistic (*BioMac*) – Crystal structures of enzyme reactive intermediates, and/or the use of techniques that provide strong correlation(s) to the proposed reaction mechanism – Chair: Allen Orville

02.04 General Interest II (*General Interest*) – This session is for all broad crystallography that does not “fit” within the areas covered by the individual SIG’s – Chair: Christine Beavers

04.01 Biomacromolecules (*SAS*) – Applications of small-angle X-ray and neutron scattering to the study of biological macromolecular structures and complexes – Chair: William Heller

07.24 Mechanisms of Phase Transitions (*Materials, Powder, Neutron, SAS*) – The atomistic mechanisms of phase transitions between symmetry-related crystal phases. – Chair: Branton Campbell

01.05 Biological Impacts of Structural Enzymology (*BioMac*) – The diverse and far-reaching impact that structural enzymology can have on our understanding and use of biology – Chair: Charles Carter

07.25 Powder Diffraction (*Powder, Neutrons, Materials*) – A general session for methods, applications and results obtained from powder diffraction, including new equipment, in-situ apparatus, phase equilibria, structure solution, refinement and materials analysis.
– Chair: Lachlan Cranswick

04.02 Soft Condensed Matter and SAS Studies (*SAS*) – X-ray and neutron scattering studies of macromolecular systems including polymer solutions, melt crystallized polymers, nano-materials and composites, and biopolymers – Chair: Gregory Beaucage

07.26 Crystal structures made difficult by solvent molecules (*Service, Small Molecule*) – Crystal structures made difficult by the number, order or occupancy of solvent molecules – Chairs: Tom Emge, Saeed Khan