



The U.S. Department of Energy's ADVANCED PHOTON SOURCE

The 2006 Users Meeting for DOE/BES User Facilities at Argonne

Advanced Photon Source
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In its 15th iteration (and 20th year), the traditional Advanced Photon Source (APS) Users Meeting became the "2006 Users Meeting for DOE/BES User Facilities at Argonne National Laboratory," encompassing the well-established Electron Microscopy Center, Intense Pulsed Neutron Source, and APS; as well as the soon-to-open Center for Nanoscale Materials (CNM). The meeting, which ran from May 1 through May 5, boasted a comprehensive roster of workshops that covered a broad range of topics while focusing squarely on the future.

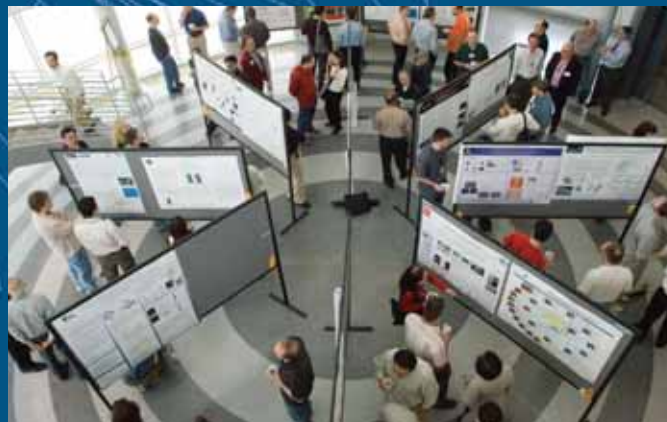
More than 600 users and others gathered at the APS Conference Center for meetings, talks, industrial exhibits, and convivial exchanges of views and information. The attendees (journeying to Argonne from 8 countries) represented more than 80 universities, labs, companies, and other institutions. The opening two-day session, chaired by Eric Isaacs (Argonne-CNM), began with a welcome from Al Sattelberger, Argonne Associate Laboratory Director, Physical Sciences. Next came the Hon. U.S. Representative Judy Biggert (R.-IL 13th) to deliver the "View from the Hill," which held out hope for a healthy level of support thanks to the U.S.'s vigorous interest in funding science and education, as spelled out in the President's "American Competitiveness Initiative."

Then Murray Gibson, Argonne Associate Laboratory Director, Scientific User Facilities, gave a brief overview of the Department of Energy/Basic Energy Sciences (DOE/BES)-funded facilities at Argonne, noting that the richness of the Argonne user facilities program affords researchers access to the right tool for their particular tasks. Wednesday's Joint Meeting was inaugurated by a "Welcome" from APS Users Organization (APSUO) Steering Committee chair Carol Thompson (Argonne and Northern Illinois Univ.). The "DOE Perspective" was offered by Roger Klaffky (Division of Scientific User Facilities, BES, DOE Office of Science), and then Gibson returned to update attendees on the state of the APS. Finally, Michael Borland (Argonne-ASD) gave a glimpse of APS-future with "A Greatly Improved Storage Ring for the APS."

An intensive five-day program began with nanoscience, including talks on "Biomolecular Directed Assembly," "Defects as Nanodevices," and "Monodispersed Inorganic Colloidal Nanoparticles: Functional Building Blocks of Future Materials." Topics during the APS portion of the meeting later in the week included "Biological Methane Oxidation" and "From X-rays to Biogeochemistry to Beethoven." "Studying Novel High Pressure Phenomena Using Integrated Synchrotron Techniques" was the talk given by 2006 Rosalind Franklin Award winner Wendy L. Mao (Los Alamos National Lab.). The Franklin Award, presented every other year by the APSUO, recognizes an important technical or scientific accomplishment by a young investigator at, or strongly beneficial to, the APS.

The scientific sessions wrapped around 11 workshops that ranged in subject from "Nanomaterials for Energy" through "Microscopy and Imaging in Materials Science," "Quantum Nanomagnetism," "Texture and Strain Mapping with X-rays, Neutrons, and Electrons," "X-ray Spectromicroscopy: a Tool for Environmental Science?," "Inelastic X-ray Scattering: Present and Future at the APS," "Diffuse Scattering: Emerging Opportunities with Advanced X-ray and Neutron Sources," and "Microdiffraction in Structural Biology." (For the complete program, see http://www.aps.anl.gov/Users/Meeting/2006/Program/comp_program.html#CNMopening.) Winners of the poster sessions competitions were: Center for Nanoscale Materials (shared prize): G. Lu (Univ. of Wisconsin-Madison) "Fabrication and Characterization of an Ultrasensitive Tin Oxide Nanoparticle Sensor" and A. Schmitt (Univ. of Wisconsin-Madison) "Synthesis and Properties of Single-Crystalline FeSi and CoSi Nanowires;" APS: (in unranked order): S. Bhowmik (Purdue Univ.) "Probing the Mechanism of a C-C bond Hydrolase by Crystallographic Studies," A. Hagman (Northwestern Univ.) "Marker Motion Measurements of Nanoparticles in Polymeric Matrices," and T. Williamson (Purdue Univ.) "Protein Self-Association Analyzed by Solution X-ray Scattering and Singular Value Decomposition."

The week was capped by a symposium and dinner in "Celebration of the Tenth Anniversary of APS Operations, to recognize the achievement of seven individuals who played key leadership roles in bringing the APS from concept to completion: David Moncton, Yanglai Cho, Gopal Shenoy, John Galayda, Ed Temple, Bob Kustom, and Joanne Day."



Part of the APS poster session set up in the atrium of the new Center for Nanoscale Materials at Argonne.

CALL FOR PROPOSALS

At the Advanced Photon Source, our door is open to experimenters from all scientific disciplines whose research requires the highest brilliance hard x-ray beams in the Western Hemisphere.

General-user proposals for beam time during Run 2007-1 are due by November 3, 2006.

Information on access to beam time at the APS is at http://www.aps.anl.gov/user/beamtime/get_beam.html or contact Dr. Dennis Mills, DMM@aps.anl.gov, 630/252-5680.

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