

THE ADVANCED PHOTON SOURCE

The Advanced Photon Source Renewal Workshop



Participants in the APS Renewal Project Workshop heard two days of talks on possible future research directions at a renewed APS.

As the APS moves through the twelfth year of user operations with ever increasing numbers of users, experiments, and publications, facility management has been looking to the future of photon science at the premier hard x-ray source in the U.S. Several years of discussions about potential renewal and upgrade scenarios brought planners to a point where the facility sponsor—the U.S. Department of Energy, Office of Science, Office of Basic Energy Sciences (DOE-BES)—has asked for a detailed, science-driven plan to cover the next five years.

This renewal plan will encompass innovations in the beamlines and the x-ray source that are needed for major improvements in important areas of user science. APS management is well into the process of engaging users, staff, the distinguished members of the APS Scientific Advisory Committee, and other outside experts in crafting this plan. Among the spectacular impacts on science and engineering research that were offered, two overarching themes were identified that will guide the DOE-BES investments for the APS Renewal: **Mastering hierarchical structures through x-ray imaging**, and **Real materials in real conditions in real time**.

A planning milestone was the workshop held on October 20-21, 2008. Two days of scientific talks and breakout/discussion sessions provided a forum for topics leaders to present the outlines of forward-looking plans for experimentation in all the major scientific disciplines covered by photon science. A white



Breakout sessions at the renewal workshop.



paper making the broad case for renewal has been written and sent to DOE-BES. The immediate next steps are: finalizing reviews of proposals from users and beamline, accelerator, and other APS staff; completing the Renewal Science Case Reports written by members of the APS community; and preparing a detailed overall picture of the potential for science at a renewed APS.

The white paper, presentations from the workshop, and other information about renewal planning can be found at:

<http://www.aps.anl.gov/Renewal/>

CALL FOR APS GENERAL-USER PROPOSALS

General-user proposals for beam time during Run 2009-2 are due by Friday, March 6, 2009
Information on access to beam time at the APS is at http://www.aps.anl.gov/Users/apply_for_beamtime.html
or contact Dr. Dennis Mills, DMM@aps.anl.gov, 630.252.5680

Argonne is a U.S. Department of Energy laboratory managed by UChicago Argonne, LLC
The Advanced Photon Source is funded by the U.S. Department of Energy, Office of Science, Office of Basic Energy Sciences