

## **X-ray Detector Workshop Proposes Coordinated Detector Development for Synchrotron Facilities**

X-ray synchrotron sources are important tools used by many thousands of researchers in the physical and biomedical sciences and engineering. X-ray detectors are rate limiting for synchrotron data collection.

On December 8-9, 2005 over 70 participants from the U.S and Europe met at the APS to attend a detector workshop sponsored by the NSF. The workshop was originally scheduled for the SRI2005 meeting in Baton Rouge, but cancelled because of hurricane Katrina. The workshop was an update to the Workshop on Detectors for Synchrotron Radiation that was held in October 2000. The program committee for the workshop had members from all U.S. synchrotrons.

The objectives of the workshop were to:

- Assess recent detector developments both in the U.S. and abroad, in order to identify research opportunities that would enhance research capabilities at U.S. synchrotrons.
- Examine detector technologies, both short-term and long-term, and suggest a strategy to insure that the U.S. researchers are competitive, and remain so, in synchrotron-based science.
- Acquaint young scientists with the present state-of-the-art in detector research and to convey exciting possibilities for the future.
- Document the conclusions of the workshop as an aid to future planning.

A major conclusion of the workshop was that the capability and throughput of many synchrotron beamlines would improve dramatically if a program to provide detector upgrades and advanced detector development was initiated. Detector advances were occurring abroad at a significantly increased pace since the last workshop, leading to new capabilities at synchrotron sources, especially in Europe. The workshop highlighted the clear advantages for increased international collaboration on detector development.

This work is notable because the workshop provided perspective about US competitiveness and advice on how to improve utilization of US facilities with identifiable funding initiatives. It pointed out areas where the US community is falling behind international counterparts, especially in Europe.

