

Joint Meeting of the
**22nd Annual Argonne Symposium for Undergraduates
in Science, Engineering and Mathematics**

**The Central States Universities, Incorporated (CSUI)
Research Conference
October 26, 2012**

**TENTATIVE
TOUR HIGHLIGHTS AND TIMES**

Tours are scheduled for the morning and afternoon on Friday, October 26, 2012. Each of the tours and the superconductivity demonstrations can accommodate 30 persons. All tours will depart from the Lobby of the APS Conference Center, Building 402.

Dress code for tours: long pants, flat, closed-toe shoes

The Advanced Photon Source (APS) at the U.S. Department of Energy's Argonne National Laboratory is one of the most technologically complex machines in the world. This premier national research facility provides the brightest x-ray beams in the Western Hemisphere to more than 5,000 (and growing) scientists from around the United States and the world. These scientists come to the APS from universities, industry, medical schools, and other research institutions to carry out research that promises new discoveries in nearly every scientific discipline, from materials science to biology, chemistry, environmental and planetary science, and fundamental physics. The x-ray beams provided by this remarkable facility enable the collection of data in unprecedented detail and in amazingly short time frames. The knowledge researchers gain here is having a real and positive impact on our technologies, our health, our economy, and our fundamental understanding of the materials that make up our world.

ATLAS – The Argonne Tandem Linac Accelerator System (ATLAS) is the world's first superconducting ion accelerator ever built. It is capable of accelerating ions of all natural elements from hydrogen to uranium for research into the properties of the nucleus, the core of matter, the fuel of stars.

Superconductivity Demonstration/Discussion - A demonstration of high temperature superconductivity will be accompanied by a discussion of the phenomenon and its possible applications. This area of research is fertile ground for new ideas because there are a number of unanswered questions therein.