

APS Upgrade Workshop

Rod Gerig



A U.S. Department of Energy laboratory
managed by The University of Chicago



From Murray Gibson Introduction

- I am delighted to announce that the collaborative planning with the users of the Advanced Photon Source (APS) at Argonne National Laboratory for the future scientific growth of the facility is entering a new and exciting phase.
- The Office of Basic Energy Sciences at DOE has asked us to prepare a scientific proposal for a major APS upgrade and submit it by October 31, 2006. Naturally, receiving a go-ahead for the upgrade will depend, in large part, on the strength of this proposal and its ability to convey the revolutionary science that would be possible by the enhanced APS.



From Murray Gibson Introduction

- I know many of you share my excitement about this opportunity not only to propel APS into world-class leadership for the next decade but also to give U.S. scientists access to revolutionary new capabilities while dramatically improving the performance of existing experiments.
- Plans for the upgrade include closely-coupled ground-breaking developments in the accelerator lattice, x-ray sources, beamline equipment, data recording and data analysis. The resulting large improvements in experimental capability would lead to world-class new science in many areas.



From Murray Gibson Introduction

- We invite you to take the opportunity to impact the details of the potential future upgrade. **We will be holding several short workshops** this summer and plan a special **summary workshop at APS on August 10 and 11** which will begin with APS staff and users providing a summary of key ideas associated with the upgrade and soliciting your input so that in the proposal we can emphasize revolutionary new capabilities that would be impossible without the upgrade, for example in ultra-fast science.



Draft Agenda for APS Upgrade Workshops

Thursday Aug. 10

8:30-8:40	Welcome
8:40-9:10	Goals of workshop/Background info
9:10	Facility Upgrade Plans
9:10-9:35	<i>Accelerator Upgrades</i>
9:35-10:00	<i>New/Unique IDs for the APS</i>
10:00-10:30	<i>Beamlines, Detectors, Optics, Software</i>
10:30-10:45	Coffee
10:45-11:15	Discussion of Proposed Facility Upgrades
11:15	Science Planning Meeting Summaries
11:15-11:35	<i>Ultra fast SAXS</i>
11:35-11:55	<i>High magnetic fields</i>
12:00-1:30	Lunch
1:30	Science Planning Meeting Summaries (continued)
1:30-1:50	<i>Intermediate Energy</i>
1:50-2:10	<i>Interfaces/Surfaces</i>
2:10-2:30	<i>Polarized X-rays</i>
2:30-3:00	Coffee
3:00-3:20	<i>Bio/Life Sciences</i>
3:20-3:40	<i>Microscopy</i>
3:40-4:00	<i>Coherence/Imaging</i>
4:00-5:00	<i>Discussion</i>



Draft Agenda for APS Upgrade Workshops

Friday Aug. 11

8:30-9:00	Short Pulses – Accelerator and Optics Perspective	
9:00	Science Planning Meeting Summaries (continued)	
9:00-9:20	<i>Psec Science</i>	
9:20-9:40	<i>Sub-milli-eV</i>	
9:40-10:15	<i>New Applied Materials and Structural Science</i>	
10:15-10:30	Coffee	
10:30-11:45	Discussion	
11:45-12:00	Closing remarks	Gibson

