Workshop on the Future Directions of Accelerator R&D at Fermilab

Particle accelerators are a major invention of the 20th century. They are engines of discovery, the most powerful microscopes in existence, the brightest light sources, and an invaluable tool for research in material, chemistry and life sciences. Accelerators are also a driving force for the advancement of numerous technologies including superconductivity, vacuum, cryogenics, microwave devices, radiation-hard materials, instrumentation, remote operation and control, computing, data storage and global communication networks.

Accelerator R&D has played a crucial role in enabling scientific discovery in the past century and will continue to play this role in the years to come. In the U.S., the Office of High Energy Physics (OHEP) of DOE's Office of Science is developing a plan for national accelerator R&D stewardship. It is examining the uses of accelerators throughout society, the desired performance characteristics of these and future accelerators, and the R&D efforts in the private and government sectors. To support this effort, Fermilab will organize a *Workshop on the Future Directions of Accelerator R&D at Fermilab* (pending DOE approval). This will take place from **May 11 to 13, 2009 at Lake Geneva, Wisconsin** (about 60 miles north of Fermilab). The purpose of this workshop is to review the status of the current research and development in the field of accelerator science and advanced accelerator technology. The intent is to have open, friendly discussions of numerous proposals for experiments and programs at the lab. The objective of the workshop is to:

- Compose a coherent proposal for general accelerator R&D;
- Compose a coherent proposal for advanced R&D at the New Muon Lab (NML) for 2012-2017;
- Outline long term prospects for these activities.

The ILC Test and AARD Facility at the NML is currently under construction and is expected to provide first beam in late 2011. This facility will have an RF photoinjector providing 40 MeV e^- beam to a string of (eventually) 6 SC RF cryomodules. There will be additional 40 MeV beamlines available for AARD. At the downstream end of the cryomodule string there will be a test area large enough to house a small storage ring and several test beamlines with beam energy up to 1.5 GeV. More information can be found on the Workshop web page:

http://apc.fnal.gov/ARDWS/index.html

This workshop will briefly review accelerator R&D activities around the world and devote most of the time to brainstorming. The attendance is by invitation with a maximum number of attendees of 50. There will be no registration fee.

The Organizing Committee members are:

Vladimir Shiltsev (Chair)
Michael Church
Panagiotis Spentzouris
Weiren Chou
Margaret Bruce

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