The Beams and Applications Seminar Series

Efficiency and Intensity Upgrade of the ATLAS Facility

Dr. Peter Ostroumov – Argonne-PHY

Bldg. 401, Room A1100
Friday, May 07, 1:30 PM
Host: Rod Gerig, APS

The Physics Division is pursuing a major upgrade of the ATLAS National User Facility. The overall project will dramatically expand the stable beam current available for the research program, increase the beam intensity for neutron-rich beams from the Californium Rare Isotope Breeder Upgrade (CARIBU) and improve the intensity and purity of the existing in-flight RIB program.

The project is proposed to take place in two phases. The first phase is funded by ARRA and focuses on increasing the intensity of stable beams by a factor of 10 for coulomb barrier energies. This will be accomplished by adding a normal conducting, CW Radio Frequency Quadrupole accelerator and replacing three cryostats of split-ring resonators with a set of newly-designed superconducting quarter-wave resonators mounted in a new cryostat. In addition, thanks to regular AIP funding, we have started development of a high-efficiency charge breeder for CARIBU beams based on an Electron Beam Ion Source.

The main focus of this talk is on innovative developments related to the Phase I of the project.

For more information visit
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