

Beams and Applications Seminar Series

This ANL seminar series is a CARA activity and focuses on the physics, technology and applications of particle and photon beams. It is sponsored jointly by the ASD Division, the AWA group of the HEP Division, and the ATLAS group of the PHY Division.

Bldg. 203, Room 150

Friday, November 8, 1:30 PM

Alexander Feschenko

(Institute for Nuclear Research: Moscow-Troitsk)

Bunch Shape Measurements in Ion Linacs

Host: Petr Ostroumov

Bunch shape is one of the most important and interesting characteristics of a beam in ion linear accelerators. Recently detectors of bunch shape with a transverse scanning of low energy secondary electrons found application in several accelerators. The principle of operation of the detectors is based on a coherent transformation of a longitudinal structure of a beam under study into a transverse distribution of a secondary electron beam through rf scanning. There are three modifications of the detectors: Bunch Shape Monitor, Bunch Length (Shape) and Velocity Detector and Three Dimensional Bunch Shape Monitor. The principle of operation of the detectors as well as the peculiarities of the structure and the design of the detectors will be discussed. To demonstrate the possibilities of the detectors the results of measurements with different detectors made at different accelerators will be presented.

For more information visit

<http://www.aps.anl.gov/asd/physics/seminar.html>

Visitors from off-site please contact the Accelerator System Division office (konopa@aps.anl.gov, 630-252-3115) to arrange for a gate pass.