

## The Beams and Applications Seminar Series

# Radiation Studies for Accelerator Applications

**Igor Rakhno**  
**FNAL**

**Bldg. 401, rm B2100**  
**Friday, September 22, 1:30 pm**

Host: K. Harkay, ASD

*Abstract: Radiation loads to accelerator structures both at normal operation and at accidents are of primary importance when considering protection against quenches and components lifetime as well as when planning on various hands-on and maintenance procedures. In order to make reliable predictions of the radiation loads, general-purpose and specialized Monte Carlo radiation transport codes are used nowadays. This presentation will provide an overview of radiation studies performed with the MARS code for the interaction regions of the LHC (including anticipated upgrades up to the ultimate luminosity of  $10^{35} \text{ cm}^{-2}\text{s}^{-1}$ ) and for other projects at Fermilab. Recent developments to the MARS code itself are described as well.*

For more information visit

[http://www.aps.anl.gov/News/Meetings/Beams\\_and\\_Applications\\_Seminars/](http://www.aps.anl.gov/News/Meetings/Beams_and_Applications_Seminars/)

Visitors from off-site please contact Jude Kitching  
([kitching@aps.anl.gov](mailto:kitching@aps.anl.gov), 630-252-6159) to arrange for a gate pass.

This ANL seminar series is an activity of the Argonne Accelerator Institute 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.