

**The Beams and Applications Seminar Series**

# **Superconducting RF at Michigan State University**

**Dr. Walter Hartung, Michigan State University**

**Bldg. 401, Room B4100**

**Wednesday, July 14, 1:30 PM**

**Host: Ali Nassiri**

A program of research and development in superconducting radio-frequency cavities at Michigan State University (MSU) began in the year 2000. The primary goal was to support the design and construction of a next-generation superconducting linac for ions. In December 2008, MSU was selected by the Department of Energy to host the Facility for Rare Isotope Beams (FRIB). FRIB is being designed to produce a 200 MeV per nucleon beam of ions with 400 kW of beam power. This requires an 850 MV superconducting linac. Quarter-wave and half-wave resonators will accelerate the beam; a total of about 350 resonators will be required. FRIB will produce radioactive ions via particle fragmentation at a significantly higher rate than is presently possible at MSU's National Superconducting Cyclotron Laboratory, allowing for new discoveries about the properties of nuclei. This talk will provide an introduction to the FRIB project, the FRIB driver linac, and the FRIB re-accelerator linac. The development program for the FRIB resonators will be described.

## **For more information visit**

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

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