

Joint LRP Proton Driver and Accelerator R&D
Subcommittee Meeting

Accelerator RF R&D at Technical Division status and plans
(introduction)

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RF Technology Development

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Dave Finley heads the RF group in the Technical Division

- This group designs and builds NLC RF structures
- Performs Superconducting RF R&D under Helen Edwards supervision.
- Provides support to Run II, Muon collider effort, etc.

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SCRF R&D

Leadership of Helen Edwards

TD RF group is working on SCRF R&D for 2 FNAL projects that build SCRF capabilities relevant to a LC if the technology decision is for a cold machine

CKM: Collaboration with BD. Goal is to provide SC RF cavities (transverse kick mode) to be used to generate a separated charged K beam for the CKM experiment

A0 3rd Harmonic cavity: Goal is to provide a 3.9 GHz accelerating cavity to linearize high current electron pulses from the A0 photo-injector.
(Note: TESLA would like us to build one of these for TTF-II also so there continues to be collaboration in this area)

FNAL will participate in a DOE/NSF sponsored workshop on SCRF in July. This may signal a change in policy WRT support for US SCRF R&D

Goals for Accelerator RF R&D at Fermilab

In order to be ready to design and build any new accelerator in the distant future (7 to 10 years from now) we need to develop a team similar to the SC magnet group, but expert in warm and superconducting RF technologies.