ACCELERATOR SEMINAR

"Superconducting RF Activities at CERN"

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Superconducting RF (SRF) has played a key role in CERN's recent flagship accelerators, with the 288 cavities of LEP having provided over 3,500 MV circumferential voltage and the 16 LHC cavities now successfully handling high intensity proton beams.

However, while LEP and LHC systems had relatively modest gradients by present-day standards, man of CERN's planned future accelerators call for high performance SRF systems. Ongoing work and prototyping related tho the HIE-Isolde RIB facility upgrade, the Superconducting Proton Linac (SPL) and the LHC luminosity upgrade (HL-LHC) will be presented. The upgrades needed at CERN's facilities for cavity preparation, cryomodule assembly and diagnostics will be described.

Studies and possible prototyping for future systems, such as high harmonic RF system in LHC, a higher energy LHC (HE-LHC) and transformation of the LHC to a hadron-electron collider (LHeC) will be presented. With limited in-house resources and expertise, collaboration with partner labs and institutes is key to this interesting and challenging work. International collaborations are already well established for the ongoing projects (via the FP7 program of the European Commission and the US-LARP collaboration, e.g.), but even wider and more profound collaboration is desired and invited for these studies preparing the future.

Tuesday, Aug 21, 2012
11:00 a.m.
CEBAF Center, Room L102

Coffee before seminar at 10:45 a.m.

Jefferson Lab

For further info, please contact Alex Bogacz at x5784 or
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