INVITED ORAL

LANSCE Beam Instrumentation and the LANSCE Refurbishment Project

Rodney C. McCrady (LANL, Los Alamos, New Mexico)

The heart of the LANSCE accelerator complex consists of Cockcroft-Walton-type injectors, a drift-tube Linac and a side-coupled Linac. These systems are approaching 40 years of age and a project to re-establish high-power capability and to extend the lifetime is underway. Many of the present beam diagnostic systems are difficult to maintain, and the original beam position monitors don’t provide any data at all. These deficiencies hamper beam tuning and trouble-shooting efforts. One thrust of the refurbishment project is to restore reliable operation of the diagnostic systems. I will describe the present diagnostic systems and their limitations, and will present requirements and solutions for the next-generation diagnostics systems.

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