Joint DESY and University of Hamburg Accelerator Physics Seminar

Tuesday, September 4-th, 2007

(16:00 in Room 459/30b)

Initial Commissioning Results of the LCLS Injector

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Abstract

The Linac Coherent Light Source (LCLS) is a SASE x–ray Free-Electron Laser (FEL) project presently under construction at SLAC. The injector section, from drive–laser and RF photocathode gun through first bunch compressor chicane, was installed in fall 2006. Initial system commissioning with an electron beam was performed during the spring and summer of 2007. The second phase of construction, including second bunch compressor and full linac, will begin later, in the fall of 2007. We report here on experimental results and experience gained during the first phase of machine commissioning, including RF photocathode gun, linac booster section, S–band and X–band RF systems, first bunch compressor, and the various beam diagnostics.

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