Joint DESY and University of Hamburg Accelerator Physics Seminar

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(16:00 in Room 459/30b)

Status of the SwissFEL and its Injector Test Facility

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(PSI)

Abstract

The SwissFEL facility will produce coherent, bright, and short photon pulses covering a wavelength range down to an angstrom, and requiring an emittance between 0.18 to 0.43 mm mrad at bunch charges between 10 pC and 200 pC. The facility consists of a S–band RF–gun, a booster, and a C–band main linac, which accelerates the beam up to 5.8 GeV. Two compression chicanes will provide a nominal peak current of about 1 to 3 kA depending on the charge. Since 2010 the SwissFEL Injector Test Facility is in operation to demonstrate the required beam parameters. In this talk an overview of the SwissFEL project is presented as well as recent results from the test accelerator.

J.Roßbach (Univ. HH) and M.Vogt (MFL).