



# The SwissFEL Project and the SwissFEL Test Facility at PSI.

**Sven Reiche (PSI)**

**Tuesday, 17 July 2012, 16:45 h**  
**Building 1b / sem. room 4a/b**

PSI prepares the construction of an X-ray free electron laser, SwissFEL, as its next major research facility. The baseline design consists of a 5.8 GeV linear accelerator and two FEL lines covering the wavelength range from 0.1 - 0.7nm and 0.7 - 70nm, respectively. SwissFEL features a linear accelerator in C-band technology, a novel design of variable gap in-vacuum undulators for the hard X-ray FEL and Apple II undulators with full polarization control for the soft X-ray FEL. The two FELs are operated independently and simultaneously with 100 Hz pulse rate each. As a stepping stone PSI operates a test facility to demonstrate the electron beam parameters required for a successful operation of SwissFEL. This presentation shows the current planning status of SwissFEL and the recent progress at the test injector facility.



- **Coffee, tea and cookies will be served at 16.30h**
- **After the seminar there is a chance for private discussions with the speaker over wine and pretzels**