PAUL SCHERRER INSTITUT

PSI facilities newsletter

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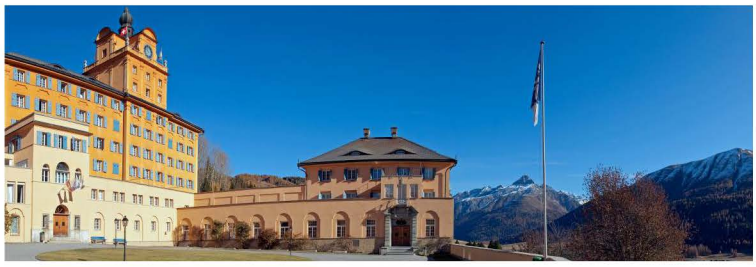
Announcement

2015 PSI Summer School on Condensed Matter Research



The PSI summer schools on condensed matter physics have a long standing tradition. Based on the previous schools on neutron scattering starting back in 1992 the PSI summer schools aim to train young researchers in the methods being used at large scale facilities such as neutron, muon and photon sources. International experts and PSI staff members will introduce and deepen the knowledge of the participants not only on methods but also on those phenomena, which are presently at the forefront of modern solid state physics and chemistry. Following the school a practical training is offered at PSI. It will allow a limited number of participants to get hands-on experience with state-of-the-art instrumentation using photons, neutrons, and muons. **More details**: www.psi.ch/summerschool

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Research highlight

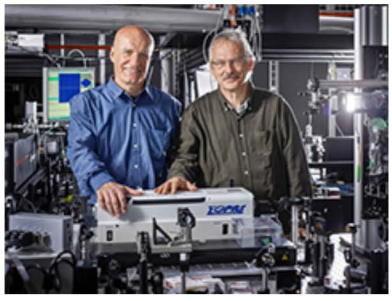
SwissFEL: Successful start of the series production of the C-band accelerating structures for SwissFEL

C-band structures in the clean room next to the area in which the stacking and brazing takes place

A total of 104 C-band accelerating structures will be needed for SwissFEL. Each of these structures is about 2 m long and consists out of 113 copper cells that are manufactured with micrometer precision using ultra-precision diamond machining, which results in mirror-like surfaces. The main components are the couplers at the input and the output of the structure, and the copper disks. For both, couplers and disks, the series production was successfully launched at the end of 2014. Since then the Dutch company VDL and TEL Mechatronics in Trübbach, Switzerland, delivered already many sets of couplers and accelerating disks, respectively. http://www.psi.ch/swissfel/highlights

Prospective studies for SwissFEL experiments done at the SLS FEMTO station

L. Rettig et al, Phys. Rev. Lett. 114, 2015, DOI:PhysRevLett.114.067402



For many years, PSI researchers have been testing experimental methods that will provide insights into novel materials for electronic devices. Using a special trick to make the Swiss Light Source (SLS) at PSI generate light with similar properties to that of PSI's x-ray laser SwissFEL, the researchers were able to demonstrate that the experiments planned for SwissFEL are possible and they are now building an experimental station at SwissFEL.
http://www.psi.ch/media/prepared-for-the-swissfel