PAUL SCHERRER INSTITUT

PSI facilities newsletter

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Announcement

Appointment of the New SLS Director

Professor Gabriel Aeppli will become the new SLS director as of April 2014. Gabriel Aeppli is an internationally recognized solid-state physicist with a broad interest. He is especially known for his spectroscopic work on magnetism of disordered systems and high-temperature superconductors, with a strong focus on neutron and photon diffraction studies as well as scanning tunneling spectroscopy. He has also developed an increasing interest in biological problems and their applications in the field of medicine. With the London Centre for Nanotechnology, he has built in a short time a leading science and technology center in the heart of London. For his scientific work, he has received several awards, including the Oliver Buckley Prize in 2005 and the Mott Prize in 2008.

PSI summer school 2014

The PSI summer school 2014 on Condensed Matter Research will be held at the Institut Montana in Zug, Switzerland from August 9-15, 2014. The topic of the school will be 'exploring time, energy and length scales in condensed matter' and the school will be followed by hands-on practical training at the PSI large user facilities SINQ, SμS and SLS.
http://www.psi.ch/summerschool

Research highlights

SLS - Super-volcano triggers recreated in X-ray laboratory

Malfait, W.J. et al, Nature Geoscience, online publication, January 2014, doi:10.1038/ngeo2042

Scientists have reproduced conditions inside the magma chamber of a super-volcano to understand what it takes to trigger its explosion. These rare events represent the biggest natural catastrophes on Earth except for the impact of giant meteorites. Using synchrotron X-rays, the scientists established that super volcano eruptions may occur spontaneously, driven only by magma pressure without the need for an external trigger. The results are published in Nature Geoscience, online publication, January 2014.
http://www.psi.ch/sls/scientific-highlights

SwissFEL - SwissFEL Undulator Prototype in the Injector Test facility - self-amplified spontaneous emission achieved

On December 5th, the 17 tons SwissFEL undulator prototype (In-vacuum Undulator U15) has been successfully moved from the Undulator lab (SLS) to the SwissFEL Injector Test Facility (SITF). The commissioning of the U15 prototype with electron beam is an important step to validate the U15 design and also to detect possible improvements before full series production. At first, the alignment procedure of the U15 segment with the electron beam has been tested. The test was extremely successful - the beginning of the SASE (self-amplified spontaneous emission) amplification could be seen on the 15th of January 2014. http://www.psi.ch/swissfel/highlights

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