

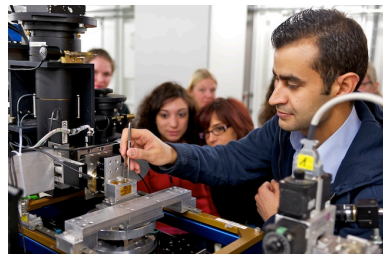
Editorial



Rafael Abela

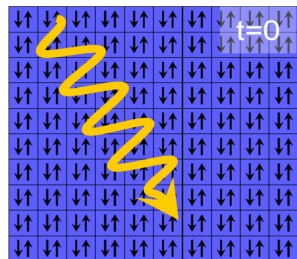
The SwissFEL project is progressing rapidly on three routes: preparation of building permit, design and construction of prototypes for the accelerator and the challenging phase of preparing future experiments. The final decision for the project will be taken by the Swiss parliament in fall of this year. Academic groups from Swiss universities and PSI are performing experiments at the XFEL facility LCLS (USA), testing new devices and measuring strategies at the SLS and planning tests at SACLA (Japan). All this exchange of experiences will strongly influence the specific future user-stations of SwissFEL. Furthermore, the interaction with future users has been strengthened: two scientific workshops on hard X-Ray instrumentation have been held in the fall of 2011. The first workshop focused on spectroscopic experiments, while the second one was dedicated to scattering and diffraction experiments. The results of the workshops are still available on the web (<http://www.psi.ch/swissfel/swissfel-workshops>). The next steps in the design process will be discussed in the course of five topical meetings, to be held at PSI until summer of 2012.

HERCULES School at Swiss Light Source



The annual HERCULES (<http://hercules-school.eu/17-about-the-school.htm>) school aims at training young European researchers (PhD students, postdoctoral scientists) in the field of neutron and synchrotron radiation in a broad range of scientific disciplines. The four-week school is organized each year for 70-75 participants and includes practical sessions at large scale user facilities. The 2012 synchrotron radiation practical took place at Swiss Light Source (SLS, PSI) and at synchrotron SOLEIL in March. During three days the SLS exclusively opened its beam lines for the school and performed practical training on cutting-edge experimental setups, i.e. the same environment setup that is used for research.

Research highlights



Creating magnetism takes much longer than destroying it

S.O. Mariager, Physical Review Letters 108, 087201 (2012)

Researchers at the Paul Scherrer Institute are finding out how long it takes to establish magnetism and how this happens. Establishing a magnetically ordered phase in the metallic alloy iron-rhodium takes much longer than the reverse process of demagnetization. This fact was established by researchers of the Paul Scherrer Institute (PSI), Switzerland, together with colleagues of an international collaboration. Magnetism is established in a two-step process. Initially, small magnetic regions form, but have random orientation. Subsequently, these regions rotate until they all have a common orientation. This is reported in an article, which has recently been published in the renowned journal "Physical Review Letters". The result comes from basic research, but has relevance for the computer industry, as it shows which processes limit the speed of magnetic data storage and where improvements might be made.

Read the full story: <http://www.psi.ch/sls/scientific-highlights>