

Editorial



Dear colleagues,

Two weeks ago PSI hosted the second Joint User Meeting JUM@P'11. The decision to go for a joint meeting and to bring together three user communities of the SLS, SINQ and the S μ S turned out to be a good one, well documented by the strong interest in the recent meeting. More than 200 participants attended the PSI user meeting 2011, which consisted of a plenary

session on the first and seven parallel topical workshops on the second day. During those sessions a total of 81 oral presentations were given. In addition, two poster sessions with totally 76 poster contributions were organized. One **special highlight** was definitely the award of the second **PSI Thesis Medal** to Elena Mengotti (see figure on top) for her recently finished thesis on "Artificial kagome spin-ice systems". The Thesis Medal is awarded every second year in the framework of the JUM@P meetings for an outstanding PhD thesis that contains substantial scientific results achieved at one or more of the large PSI user facilities. <http://indico.psi.ch/event/jump11>.

Stefan Janssen on behalf of the organizing committee

Announcement

The materials science beamline at SLS has been upgraded

The MS beamline has been undergoing an upgrade from wiggler to undulator radiation. The undulator has been installed and initial tests indicate its brilliance is as expected. The optics, consisting of a double-crystal monochromator (including a sagittal horizontal focussing crystal) and two mirrors (one dynamically bendable for vertical focussing) have been surveyed and commissioned. The first test data of silicon powder at the powder station produced the theoretical linewidths and 2-theta angles. Pilot experiments both at the powder station and the surface diffraction station should commence in October. Normal user operation is expected in the first quarter of 2012.

Research highlight



New method for the diagnosis of cancer in breast tissue

M. Stampanoni et al., Investigative Radiology; published online 22 July 2011

The Paul Scherrer Institute (PSI) has developed a new breast cancer diagnostic method, and is now carrying out first tests on non-preserved human tissue in conjunction with the Kantonsspital Baden AG. This new method should be able to reveal structures

that cannot be seen using conventional mammography. Standard procedures only determine the extent to which X-rays are attenuated by various tissue structures. In contrast to this, the new method also makes use of the fact that X-rays actually consist of waves, and that their properties change slightly as they travel through tissue. These changes are now measurable and can contribute to the creation of a more meaningful image of the object under investigation. <http://www.psi.ch/sls/scientific-highlights>.