



MEETINGS ON X-RAY IMAGING

X-ray imaging was one of the main topics of the series of meetings held in November 97 in Grenoble.

They started with the SR-50 celebration of the 50th anniversary of synchrotron radiation, where the last day was nearly completely devoted to imaging.

The User's Meeting followed, one day after; it included a plenary talk on the in-situ phase tomographic

investigation of damage in a composite alloy, (J.Y. Buffiere), and a «mini-workshop» on imaging. The satellite meeting on x-ray imaging held the next day at the ESRF concluded these scientific events.

The 'imaging' mini-workshop, organized by J. Baruchel within the frame of the User's Meeting, gave a general view on what has been achieved at the ESRF (M. Schlenker's review paper), and on the big variety of techniques which have been developed at the various beamlines partly or totally devoted to imaging (BM5, A. Souvorov; ID17, P. Spanne; ID19, J. Härtwig; ID21, J. Susini; ID22, C. Raven).

The use of phase contrast was highlighted by several speakers, and the specificities of the beamlines emphasized. A presentation of the available detectors (J.P. Moy) and two short scientific highlights, on the joint use of phase radiography and diffraction imaging to investigate defects in quasicrystals (L. Mancini), and on the peculiar deformations of the ice of the Antarctica (P. Duval) concluded this mini-workshop.

The satellite meeting held at the ESRF was originally intended to bring together the various users of the 'long' ID19 beamline. ID19 was the first operational beamline completely devoted to x-ray imaging. The idea was, 16 months after the official aperture to users, to show what was possible, which topics were already investigated



and what are the main results. The success of the meeting went beyond what was originally expected: more than 80 scientists attended the sessions and more than 50 posters were displayed. These posters presented an important fraction of the work performed on ID19, but also imaging work performed on other ESRF beamlines (BM5, ID22) and even other synchrotron radiation facilities (Daresbury, Hasylab). This one-day meeting started with a presentation on the new possibilities already implemented. It was followed by a series of short oral presentations of the posters. The main of the afternoon was devoted to an animated poster session, and a visit, for the interested people, of the ID19 and ID22 beamlines. The highlights and trends of this meeting were extracted by B. Tanner. His, of course subjective, but quite largely shared, highlights list included the first microfluorescence mapping, the microtomographic work (bones in absorption, Al-SiC composites and insects using phase radiography), the combination of phase and diffraction imaging (defects in quasicrystals, domains in lithium niobate), the applications of diffraction imaging to magnetic materials and, through Moire imaging, to semiconductors. The three short papers which follow partly illustrate these highlights.

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