



KRYO 2011
2.10.-4.10. 2011
in Autrans, France

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The annual workshop "Kryoelektronische Bauelemente" (Cryoelectronic Devices) was held from the 2nd to 4th of October 2011. While this meeting is traditionally serving the German superconducting electronics community, the KRYO 2011 was exceptionally organized this year in the area of Grenoble, France by IRAM, the French-German-Spanish Institute for Radio Astronomy in the millimeter wavelength range. On this occasion the numerous research groups active in superconducting electronics in the Grenoble area were invited to participate. Indeed, the meeting has always been open to participants from other countries and this year has seen also participants from the Netherlands. This meeting traditionally does not publish any proceedings.

KRYO 2011 was held at the conference center L'Esquandilles in Autrans, Vercors, one of the prettiest mountainous places in the French Pre-Alps. The exceptional weather conditions allowed a relaxed but intense exchange of the latest news on superconducting devices, circuits and sensors. This year's scientific program emphasis was on detector components and systems, mostly, but not only, for radio-astronomy applications.

On the arrival-day two tutorials were given on two specific superconducting detector topics. Dr Doris Maier (IRAM) gave a broad overview of theory of and practical developments in SIS mixers in radio astronomy. Reaching quantum limited performance SIS mixers belong to the most successful superconducting devices and are at the base of very large space and ground based radio-astronomical projects such as Herschel/HIFI and ALMA. The second tutorial was given by Dr Christian Hoffmann (Institute Néel) on the foundations and applications of the relatively new and promising class of radiation detectors based on kinetic inductance effects. Together with the possibility for massive readout multiplexing in the frequency domain such detectors present a high potential for focal plane instrumentation with very large pixel numbers.

During the following one and a half days 20 talks and 13 posters were presented. Apart from sensors for radio astronomy and single photon detectors for photonic applications new results on artificial atoms and other quantum systems created with Josephson junction circuits were presented. New developments on HTS preparation through current injection as well as LTS applications such as TES based detector arrays, micro-SQUIDS and voltage standards completed the program which can be found under <http://www.iram-institute.org/EN/content-page-224-7-67-224-0-0.html>.

Issue No. 18 of ESNF includes six selected KRYO 2011 presentations. The selection was restricted to system and subsystem topics only.

The group photo of participants is shown below (Figure 1).



Fig. 1. Group photo of participants taken after adjourning on October 4, 2011.

The next conference, KRYO 2012, will take place in October 2012. It will be organized by the Physics Institute of University of Tübingen. The location will be near Freudenstadt in the Blackwood Forest.