Astrophysics Detector Workshop 2008, Nice, France

February 9, 2009 (HE27). Superconducting detectors, especially the transition edge sensors (TES), and their readout circuitry utilizing SQUID amplifiers and multiplexers, are becoming of significant interest to astrophysical research, because of superior performance of such detectors (*e.g.*, energy resolution). First ground-based superconducting multi-pixel radio-astronomy cameras were successfully tested, commissioned, and already produced first results [1]. We briefly report here on the "Astrophysics Detector Workshop 2008" held in Nice, France, from November 17th to 20th, 2008.

The Workshop was organized by INSU (Institut National des Sciences de l'Univers) in partnership with CNES (French Space Agency) and was devoted mainly to detection instrumentation. French scientists and engineers constituted the targeted audience. The purpose of the meeting was to discuss:

- Main requirements for astrophysical detectors
- State of the art of the detection technology
- Emerging technologies that can bring significant improvements to the instrumentation for astrophysics.

The Workshop program covered the three principal wavelength ranges:

1. High energy and gamma rays,
2. UV, visible and infrared wavelengths,
3. Millimeter and sub-millimeter wavelengths.

The final program can be found here. The website of the Workshop is still accessible at http://www-laog.obs.ujf-grenoble.fr/heberges/AstrophysicsDetector2008/index.htm. It contains the program and also the presentation slides. This comprehensive slide collection is quite valuable, but no information is available on how long will it be accessible via Internet. Most presentations were by French speakers, but some foreign presentations were included in the program. We highlight here a few talks devoted essentially to superconducting devices and cryogenics:

- Lionel Duband (CEA, Grenoble): Cryogenics for ground based and space borne instrumentation
- Carl Jacobs (Univ. of Cologne): Superconducting heterodyne detectors beyond 1 THz,
- Piet de Korte (SRON, Groningen): TES – technology and physics,
- Doris Meier (IRAM, Grenoble): Advanced mm wave SIS mixers,
- Harvey Moseley (Nasa/Goddard): Bolometer arrays for mm/submm astronomy,
- Damien Prêle (APC, France): Superconducting NbSi bolometer.

Proceedings of this workshop will be published by EAS (European Astronomical Society). Overall the Workshop offered an update, mostly on French and European progress, of the comprehensive overview offered by the Proceedings of the 12th International Workshop on Low-temperature Detectors published in *J. Low Temp. Phys*. **151**, No. 1 to 4, (2008), see http://springerlink.metapress.com/content/104917/.

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[1] N.W. Halverson, T.M. Lanting, P.A.P. Ade *et al*, "Sunyaev-Zel'dovich effect observations of the bullet cluster (1E 0657-56) with APEX-SZ, http://adsabs.harvard.edu/abs/2008arXiv0807.4208H.