

Detectors for Astronomy 2009

12–16 October 2009, ESO Headquarters, Garching, Germany

Astronomical observations are critically dependent on focal-plane array technology, and detectors continue to play a key role in continuing to extend the scope of astronomical observations. Higher sensitivity, reduced noise, larger formats, better cosmetic quality, higher quantum efficiency, smaller point-spread functions, lower dark current, higher bandwidth, and many more, constantly set new milestones on the roadmap towards the goal of artefact-free photon shot noise limited images of reality. One of the fastest growing applications is signal sensing, especially wavefront sensing for adaptive optics and fringe tracking for interferometry, which have become vital enabling technologies for both interferometry and extremely large telescopes. Topics of active research are large format Complementary Metal Oxide Semiconductor (CMOS) and Charge Coupled Devices (CCD) array mosaics, orthogonal transfer CCDs, electron multiplication CCDs, electron avalanche photodiode arrays, quantum-well infrared photon detectors, Application Specific Integrated Circuits (ASICs), blocked-impurity band arrays, novel readout technologies, to name a few. In a field with such rapid and complex developments, it is essential that designers, manufacturers and users gather regularly in order to exchange information about requirements, technical possibilities and achievements on a worldwide scale.

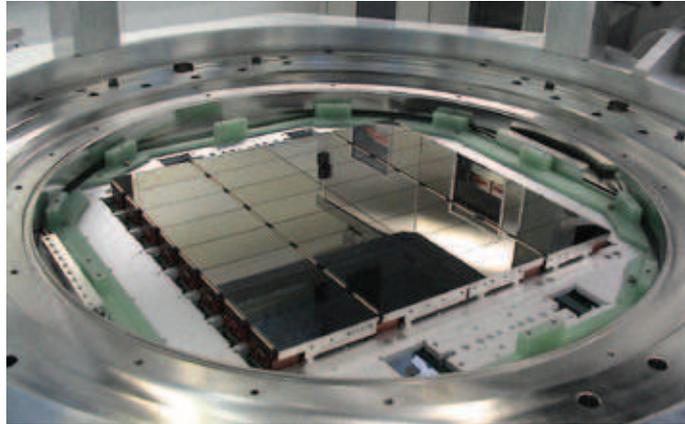


Figure 1. The 8 x 4 mosaic of e2v CCD82-44 2K x 4K CCDs (16K x 16K pixels in total) for OmegaCAM, which will capture the full 1 degree x 1 degree field of view of the VLT Survey Telescope (VST).

The 2009 Workshop Detectors for Astronomy aims at providing an up-to-date platform for such exchanges and continues a series of similar meetings in 1991, 1993, 1996, 1999 (all at ESO-Garching), 2002 (Waimea), and 2005 (Taormina). The 2009 meeting will specifically address the following topics:

- Detector technologies and design
- Detector manufacturing
- Detector evaluation and calibration
- Control electronics
- ASICs
- Control software
- Detector systems
- Mosaic focal-plane arrays
- Cryo-vacuum technologies
- Instruments with very demanding and/

- or novel requirements on detectors
- Scientific applications and results that depend on high performance detectors
- Test methodology and quality control
- Calibration of performance

Contributions are invited irrespective of wavelength and deployment on the ground or in space. The main focus will be on the optical and infrared domains. Depending on interest, splinter meetings dealing with topics of special interest can be organised. Contributions with demonstrations of hard- or software are welcome (subject to technical feasibility).

For registration and more information please visit www.eso.org/sci/meetings/dfa2009/.

ESO's Studentship Programmes: Training Tomorrow's Astronomers Today

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Students are the lifeblood of astronomy, the next generation of astronomers. While other scientific disciplines are

facing declining student enrollments, the ASTRONET strategic plan for European Astronomy notes "young students have continued to enter the field at a steady level". Indeed, with Very Large Telescope (VLT), Atacama Large Millimeter/submillimeter Array (ALMA) the European Extremely Large Telescope (E-ELT) and other exciting new facilities on the horizon, it is hard to imagine a better time to be an astronomy student.

ESO is a leader in shaping the future of astronomy, and one important way to achieve this goal is by offering short-term and long-term studentships that provide excellent opportunities for students to pursue research under the supervision of ESO staff astronomers. Since its inception two decades ago, hundreds of young astronomers have spent some time during their PhD programme at ESO in Garching or Santiago. Many have gone on to leading positions