ESO Presence at the Astronomical Society of Brazil Annual Meeting

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The 36th annual meeting of the Astronomical Society of Brazil (Sociedade Astronômica Brasileira SAB[1]) was the first meeting since Brazil's notice of accession to ESO at the end of 2010. The organisers of this event took the opportunity to offer their community a wide-ranging overview of ESO by inviting four speakers to present high-level synopses of key ESO activities. The meeting was held from 4–8 September 2011 in the beautiful setting of the holiday resort town of Aguas de Lindoia, about 180 kilometres from Sao Paolo.

The importance of Brazil's joining ESO was underlined by the Director General, Tim de Zeeuw, opening the proceedings on the first night of the meeting with an overview of ESO's facilities and activities.

On the third day of the conference, the estimated 300 participants, the vast majority of whom represented the future of Brazilian astronomy, were treated to a special session dedicated to ESO. To begin with, Wolfgang Wild provided an excellent description of the Atacama Large Millilimeter/submillimeter Array (ALMA), its science goals and the project status. The equivalent overview for the European Extremely large Telescope (E-ELT) was presented by Jochen Liske. Simon Lilly from ETH, Zurich, then supplied a review of ESO from the perspective of a community member and telescope user. He related his own experiences in engaging with ESO, both as a committee member and as PI (Principal Investigator) of a Large Programme at the VLT, and encouraged the audience to get involved in ESO's decision-making processes. This was followed by a thorough review of ESO's Public Surveys and the Science Archive Facility by Thomas Szeifert. Last, but by no means least, Luca Pasquini reviewed the VLT and La Silla instrumentation programmes, highlighting opportunities for the Brazilian community.

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Figure 1. The ESO Director General Tim de Zeeuw fielding questions after his inaugural address to the Astronomical Society of Brazil.

In addition to these dedicated ESO presentations, Francois Hammer presented an instrument concept for the E-ELT, while other speakers reported on recent results from the VLT, including Rodolfo Smiljanic, a Brazilian ESO Fellow. These ESO-related presentations were received with a high level of interest getting the astronomical relations between Brazil and ESO off to a great start.

Links

[1] Sociedade Astronômica Brasileira webpage: http://www.sab-astro.org.br/

First ESO Public Release of Data Products from the VISTA Public Surveys

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The ESO Science Archive Facility now provides community access to the first release of data products from the near-infrared 4-metre Visual and Infrared Survey Telescope for Astronomy (VISTA) public survey projects. Following one and a half years of successful scientific operations of the VISTA telescope, the VISTA public surveys have returned nearly 6 TB of reduced data products, which can be queried for and downloaded by the international community via dedicated query interfaces.

The survey programmes on VISTA are a suite of well-coordinated and challenging scientific projects that range from a pencil-beam survey with deep observations of extragalactic fields to whole hemisphere surveys (Arnaboldi et al., 2007). These survey projects were approved during the 79th ESO Observing Programme Committee meeting in November 2007 and effectively started surveying the southern sky in April 2010, following the successful commissioning of the VISTA telescope at the La Silla Paranal Observatory. A summary of the scientific goals and observing strategies of these surveys is available on the ESO web pages[1].

As stated in the ESO Council document on the VLT/VLTI science operations policies, the Science Archive is the collection point for the survey products and the primary point of publication/availability of these products to the ESO community. The policies that ESO implemented to manage the survey projects on behalf of the community entail the submission and publication of data products according to an agreed cadence before any new telescope time allocation is granted to the continuation of each survey. The first of such review milestones was set one and a half years after the start of scientific operations at the VISTA telescope. Most of the survey teams have now submitted the agreed-upon data products, the first of which are now publicly available for community access and scientific investigation.

The current data release covers mostly the period from February 2010 to September 2010. It primarily consists of astrometrically and photometrically calibrated mosaicked and co-added images, each covering 1.5 square degrees, their weight maps and associated single band source lists in the different bands of each survey. The data products from the first VISTA public release can be queried for and retrieved[2]. A summary table of the current release is provided in Table 1.

Survey project	Release content	Sky coverage (sq.deg)	NIR filters
VVV	Contiguous patch of Bulge and Disc region including multi-epoch data in *Ks*	520	*ZYJHKs*
VIDEO	XMM-LSS field	1.5	*YJHKs*
VMC	2 pointings in the LMC, one overlapping with 30 Doradus and the other with the South Ecliptic Pole	3.0	*YJKs*
VHS	VHS DES: 120 seconds in *JHK* VHS ATLAS: 60 seconds in *YJHKs* VHS GPS: 60 seconds in *JKs*	1910 –	*YJHKs*

Table 1. Summary of the content of the first VISTA public survey data release.

The mechanism set in place by the Phase 3 process for the reception, validation, and publication of data products from public survey projects ensures a high level of homogeneity and uniform standards for the data products accessible via the ESO archive query interface. Each data release is accompanied by an accurate release description[3] which provides information on the area coverage, the content of the release (i.e. bands, depth, etc) and additional details on the calibrations and results from quality control. This information supports the scientific use of the products by the international community beyond the initial goals identified by the survey teams.

By accessing the first VISTA public release, the ESO community benefits from the joint efforts by ESO, the PIs of the VISTA public survey projects and their collaborators, including the data centres at CASU[4] and WFAU[5].

References

Arnaboldi, M. et al. 2007, The Messenger, 127, 28

Links

[1] Goals of VISTA public surveys: http://www.eso.org/sci/observing/policies/PublicSurveys/sciencePublicSurveys.html
[2] VISTA public surveys query form: http://archive.eso.org/wdb/wdb/adp/phase3_vircam/form
[3] Description of public surveys data release: http://www.eso.org/sci/observing/phase3/data_releases.html
[4] Cambridge Astronomy Survey Unit: http://casu.ast.cam.ac.uk
[5] Edinburgh Wide Field Astronomy Unit: http://horus.roe.ac.uk/vsa/index.html

Announcement of the Workshop

Astronomical Data Analysis 7th Conference

14–18 May 2012, Cargèse, Corsica, France

Held regularly since 2001, the Astronomical Data Analysis (ADA) conference series is focused on algorithms and information extraction from astrophysical datasets. During this year's conference ADA-VII, sessions will be dedicated to advanced algorithms in astronomical pipelines, asteroseismology, exoplanet detection, large-scale structure, cosmic microwave background, restoration, hyperspectral data analysis and compressed sensing. As in previous ADA conferences, there will be a full week of tutorials (7–11 May 2012) on various topics of advanced data processing, preceding the conference itself.

The ADA conference is strongly interdisciplinary, allowing researchers coming from different fields to interact. There are generally five or six keynote speakers, who are leaders in their respective fields, half being astronomers and the other half being mathematicians, statisticians or electrical engineering researchers. Each session has at least one invited speaker, and half of the talks are contributed talks. A full poster session is also included in the programme.

The Cargèse conference centre can host 80 participants during the conference week and 40 participants during the tutorial week.

More details can be found at the conference web page: http://ada7.cosmostat.org/ or by email to: ada7.cargese@gmail.com