

THE COOL UNIVERSE: EXPLORING COSMIC DAWN

DANIELLE ALLOIN AND CHRIS LIDMAN (ESO)

In preparation for ALMA, the International Astronomical Observatories in Chile (IAOC) organised a conference on the topic of the cool universe. The conference was hosted by the Universidad Tecnica Federico Santa Maria (UTFSM) in the beautiful Chilean port city of Valparaiso from 4 to 8 October 2004 and was jointly supported by ESO, CTIO, LCO, Gemini, NRAO and NAOJ.

There were about 70 participants, of which 10 were students from countries in Latin America and 10 were students from the host university. We were extremely happy to be hosted by the UTFSM, where many of the technicians and engineers working at the astronomical observatories in Chile have been trained. This is a beautiful campus, from where one has clear views of the Pacific Ocean and Valparaiso. By chance, during this same week, the UTFSM opened its doors to young scholars from colleges in the area to visit and tour the campus. Therefore, we set up exhibitions about ESO and ALMA, and one of our SOC members, Dr. G. Garay from U. Chile, gave a public talk at the end of the Workshop.

In order to prepare the astronomical community in Chile for ALMA, we chose to organize the conference on the topic of the

cool universe, which as everyone knows will provide key targets for ALMA! A broad range of astronomical topics were covered, from star-forming, primordial galaxies to star formation and the formation of disks and planets.

After a kind welcome given by Dr. O. Espinosa, Head of Physics Department at UTFSM, we started with a tutorial by Dr. M. Guelin, about observing in the millimeter domain and deriving physical information about the observed targets. The early universe was reviewed in two talks, by Dr. D. Spergel (CMB) and Dr. C. Carilli (epoch of re-ionization, galaxy formation, ...). Emission processes in the interstellar matter were discussed and colorfully presented by Dr. P. Ho, while the fate of dust particles was discussed by Dr. E. Dartois. All the activities related to the path from molecular clouds to stars and chemical enrichment were discussed by Dr. L. F. Rodriguez, Dr. J. Cernicharo and Dr. D. Mardones. Back to some cosmological relevance, Dr. A. Wolfe discussed the properties of the ISM as a function of redshift. Finally, protoplanetary and related discs were discussed by Dr. F. Menard. After each review, oral contributions on the topic were made. The last day was devoted to more technical aspects, start-

ing with a review by Dr. M. Rubio, of all astronomical facilities on the Chajnantor plateau (the site of ALMA), either existing, in construction or in planning. Then, a detailed presentation was made of each of the facilities. Posters on different subjects discussed at the Workshop were presented as well. The concluding remarks of the Workshop were kindly given by Dr. T. Geballe.

During the conference, there were interviews with local newspapers and radio stations, a delicious cocktail (in spite of the rather cold and grey weather), "mariscos", a Chilean delicacy, and walks in the amazing city of Valparaiso with its "escaleras", "ascensores", flowers, cats and colorful houses. The foreshore of Valparaiso was the site of the workshop dinner where we also enjoyed South American music, dancing and a wonderful display of pictures taken during the Workshop.

We hope that more young astronomers will join the millimeter fan club and start considering ALMA as a near reality and not as a distant project! Many thanks to our host, the UTFSM, to the IAOC sponsoring organisations and to all the SOC/LOC members and staff who helped with the preparation of the Workshop.

THE "VENUS TRANSIT EXPERIENCE"

HENRI BOFFIN AND RICHARD WEST (ESO EPR DEPT.)

On November 5-7, 2004, an unusual conference took place at the French Ministry of Research in Paris. Entitled the "Venus Transit Experience", this meeting was organised by the VT-2004 International Steering Committee (ISC) and the local arrangements were ably taken care of by the staff of the IMCCE and the Observatoire de Paris, with Jean-Eudes Arlot and William Thuillot at the helm. It brought together more than 150 persons connected to the VT-2004 programme. The aim was to sum up the vast experience gained through this unique public education programme and, in particular, to perform an evaluation of its many components. On the first day, more than 50 students from the Paris areas who participated actively in this programme were also present.

The meeting was opened by the Directrice de la Recherche, Mme Elisabeth Giacobino, on behalf of the French Minister of Research, as well as Mr. Bernard Leroy, from the CNRS, on behalf of the Director General of the National Institute of the Sciences of the Universe (INSU, CNRS). Following an overview of the VT-2004 programme by ISC members with the presentation of some of the highlights, a lecture by famous astrophysicist and populariser



The lecture by famous astrophysicist and populariser Hubert Reeves was followed with great attention.

Hannes Heyer (ESO)

Hubert Reeves on “Humanity and Astronomy” placed the associated themes into a larger perspective.

They were succeeded by the showing of ten Laureate Videos selected by the jury for the VT-2004 Video Contest. The participants accorded a “*Prix du Public*” to the Video “... 121 ans après” produced by a team of Belgian students led by Audrey Coeckelberghs and Aurore Genicq. The three top prizes went to the following teams:

1st Prize: “The Venus Transit in the Golden Valley” by Matthews Biggs, James Hendry, and Louisa Llewellyn, (Herefordshire, UK).

2nd Prize: “Venus in Sole Visa” by Martin Lhotak and Robert Smolik (Prague, Czech Republic)

3rd Prize: “Millenium Transit” by Piotr Majewski and Jerzy Rafalski (Torun, Poland).

The Jury, in agreement with ESO, and in recognition of the excellent quality of all three winners decided to award all three teams a trip to Paranal, a gesture that was received with much emotion by all.

On the second day of the conference, reports were given by experts in various areas e.g. primary and secondary schools, media and amateur astronomers, which demonstrated the success of the entire effort but also served to identify some areas in which experience was gained that will become useful for future projects of this kind. National Committees from about 25 countries, either orally or by posters, documented in a comprehensive way the individual approaches taken in different regions and cultural environments and reported many useful “lessons learned” within the unique VT-2004 pilot project.

This was also the opportunity to announce the interesting outcome of the vast “VT-2004 Observing Campaign” that was organized to re-enact the historical determination of the distance to the Sun (1 AU) by

The winners of the VT-2004 Video Contest show their joy when they learn they are good for a trip to Paranal.



Hannes Hever (ESO)

means of timings of the four contacts made by observers in and outside Europe. A large number of groups of observers registered; at the end, there were 2763 all over the world and among these almost 1000 school classes. As expected, not all groups delivered timing observations of the transit. In some places, the weather did not co-operate, some observers may have had instrumental problems, e.g., with the time signals, and others may not have felt confident to send in their measurements. Still, the resulting database is impressive: by the stipulated deadline on July 10, 2004, no less than 4550 contact timings had been received from 1510 registered observing teams.

Following extensive analysis of this large material at IMCCE, the final result was: $1 \text{ AU} = 149\,608\,708 \pm 11\,835 \text{ km}$, or just 0.007% larger than the currently accepted value, as determined by radar measurements – a splendid outcome of a truly unique international collaboration! More details are available at the VT-2004 website (<http://www.vt-2004.org>).

On the last day of the meeting, represen-

tatives of the National Nodes met with the International Steering Committee members to discuss how to build on the enormous momentum gained throughout the VT-2004 project. By unanimous vote, it was decided to work towards the creation of a continent-wide “*European Astronomy Day*” (an attractive name still to be found!) in autumn 2006, aimed at the broad public in general, and the schools in particular. The intention would be to manage it in a wide collaboration between European astronomy-oriented organizations and institutes, science communication institutions (planetaria, science centres) and amateur organizations, all bound together by a network with national/regional nodes, based on the current VT-2004 National Nodes, but suitably modified and amended to reflect the change of emphasis.

Everybody agreed that the “Venus Transit Experience” meeting proved very successful and was a nice conclusion to a unique public education project. Most of the presentations given at this conference are available on the web at <http://www.vt-2004.org/FinalEvent/>.

Personnel Movements

(1 September 2004 - 31 November 2004)

ARRIVALS

EUROPE

BEDIN, Luigi (I)	Fellow
BIK, Adrianus (NL)	Fellow
BORTOLUSSI, Alessandro (I)	Paid Associate
CASALI, Mark (I)	Astronomer
DI CESARE, Stephane (F)	Software Engineer
FEYRIN, Sylvie (F)	Software Engineer
GERKEN, Bettina (D)	Student
JORDAN, Andres (CL)	Fellow
JÖRVINEN, Arto (FI)	Student
KELLERER, Aglae (F)	Student

KIRCHBAUER, Jean Paul (D)
KJAER, Karina (DK)
KNIAZEV, Alexei (RU)
MESSINEO, Maria (I)
MORA, Marcelo (CL)
RZEPECKI, Jaroslaw P. (PL)
SEDGHI, Babak (IR)
SEICHTER, Nicole (D)
SEIFAHRT, Andreas (D)
THEBAUD, Nathalie (F)
UTTENTHALER, Stefan (AT)
VANDAME, Benoit (F)
WEHNER, Stefan (D)

Mechanics Technician
Student
Paid Associate
Fellow
Student
Student
Paid Associate OWL
Paid Associate
Student
Paid Associate
Student
Fellow
Software Engineer