

VLT: The winners and Gerd Hudepohl in front of UT1.

The next destination was the Paranal Observatory. Humberto Varas was our guide and showed us the site. First we

got a visit to UT1, ANTU, by day. The active optics system and the mounted instruments were explained. We also

had a look into the control room, where the different purposes of the computers and monitors were illustrated.

After dinner we went again up on the mountain and we saw the opening of the telescopes. The winners were really excited seeing the “big brother” of the NTT moving. After sunset we stayed for a long time in the control room. We got explanations of the instruments mounted on each telescope as well as of the objects imaged that night. The Telescope Operators, the Staff Astronomers and the Visiting Astronomers kindly explained us their work.

Of course, on both observatories we had the possibility to ask questions, which was very important for the winners, not just hearing astronomers talking, but speaking directly to them.

Although the long trip was very exhausting, we forgot it completely seeing the observatories. All are thankful to ESO for providing this nice prize and the opportunity to see the sites, where real frontline astronomy is done.

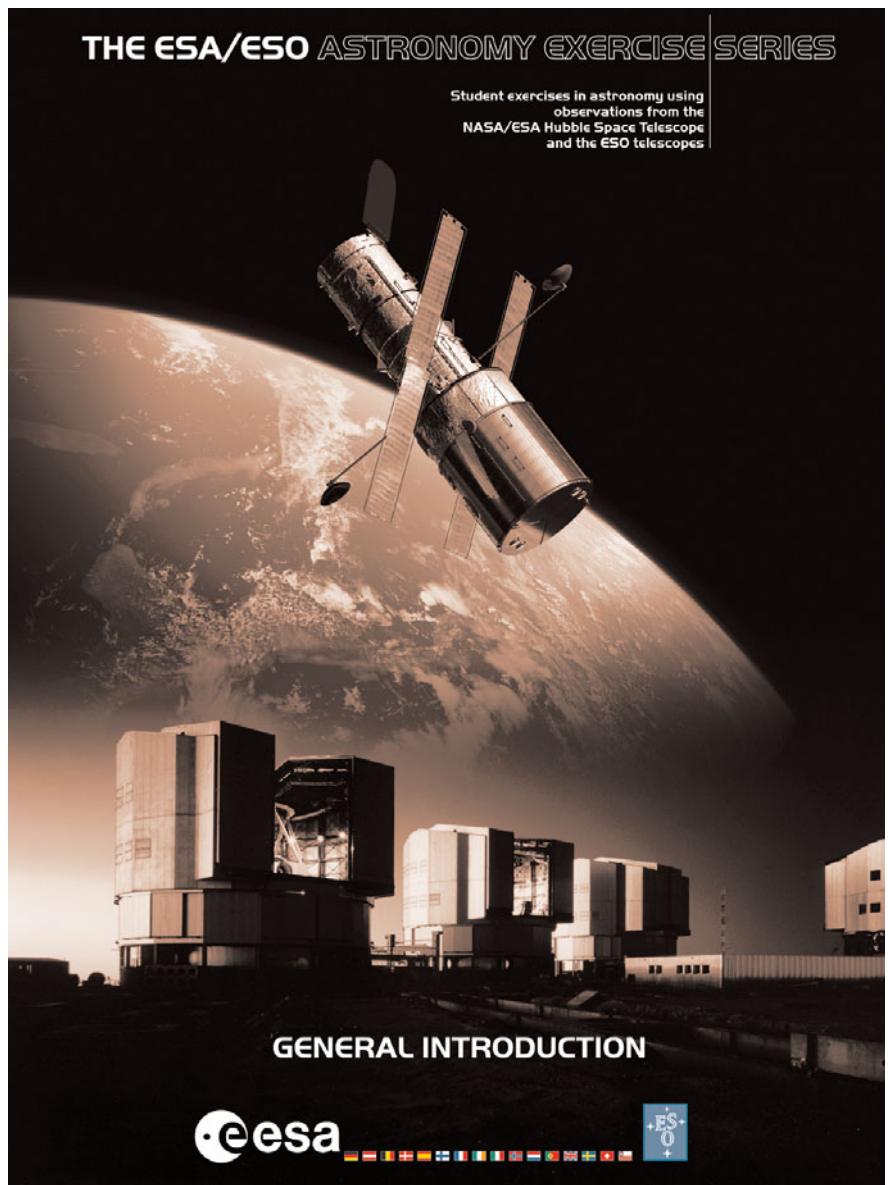
## In the Footsteps of Scientists – ESA/ESO Astronomy Exercise Series

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The first instalments of the “ESA/ESO Astronomy Exercise Series” has been published, on the web and in print (see also ESO PR 29/01). These exercises allow 16–19-year-old students to gain exciting hands-on experience in astronomy, making realistic calculations with data obtained by the NASA/ESA Hubble Space Telescope and ESO’s Very Large Telescope (VLT). Carefully prepared by astronomers and media experts, these exercises enable the students to measure and calculate fundamental properties like the distances to and the ages of different kinds of astronomical objects.

Cover of General Introduction.  
(European Space Agency  
and European Southern Observatory).



## Focus on Basic Themes

The first four exercises focus on measurements of distances in the Universe.

The students apply different methods to determine the distance of astronomical objects such as the supernova SN 1987A, the spiral galaxy Messier 100, the Cat's Eye Planetary Nebula and the globular cluster Messier 12. With these results it is possible to make quite accurate estimates of the age of the Universe and its expansion velocity, without the use of computers or sophisticated software.

Students can also perform 'naked-eye photometry' by measuring the brightness of stars on two VLT images (taken through blue and green optical filters, respectively). They can then con-

struct the basic luminosity-temperature relation (the "Hertzsprung-Russell Diagram") providing a superb way to gain insight into fundamental stellar physics.

## Six Booklets

The following booklets have been published:

"General Introduction" (an overview of the exercise series),

"Toolkits" (explanation of basic astronomical and mathematical techniques),

"Exercise 1: Measuring the Distance to Supernova 1987A",

"Exercise 2: The Distance to Messier 100 as Determined by Cepheid Variable Stars",

"Exercise 3: Measuring the Distance to the Cat's Eye Nebula" and

"Exercise 4: Measuring a Globular Star Cluster's Distance and Age".

Each of the four exercises begins with a background text, followed by a series of questions, measurements and calculations. The exercises can be used either as texts in a traditional classroom format or for independent study as part of a project undertaken in smaller groups.

The booklets are sent free-of-charge to high-school teachers on request and may be downloaded as PDF files from the website. More exercises will follow in the future, e.g. measuring the velocity and distance to a transneptunian object.

Contact: [info@astroex.org](mailto:info@astroex.org)

Web: [www.astroex.org](http://www.astroex.org)

# PERSONNEL MOVEMENTS

## International Staff

(1 January 2002 – 31 March 2002)

### ARRIVALS

#### EUROPE

DELMOTTE, Nausicaa (F), Student  
DEPAGNE, Christophe (F), Student  
GUIDOLIN, Ivan Maria (I), Associate  
IAITSKOVA, Natalia (RU), Associate  
PAUFIQUE, Jérôme (F), Engineer Adaptive Optics  
STOLTE, Andrea (D), Associate  
TAYLOR, Luke (GB), Associate  
WOLFF, Burkhard (D), Astronomical Data Quality Control Scientist

#### CHILE

KERVELLA, Pierre (F), VLT1 Astronomer  
LEDOUX, Cédric (F), Operations Staff Astronomer  
MORELLI, Lorenzo (I), Student  
PINTE, Christophe (F), Associate  
RABELING, David (NL), Associate  
RATHBORNE, Jill (AUS), Associate SEST

### DEPARTURES

#### EUROPE

DEMOULIN-ARP, Marie-Hélène (F), Astronomer  
DESSAUGES-ZAVADSKY, Miroslava (CH), Student

FARINATO, Jacopo (I), Support Engineer  
GENNAI, Alberto (I), Control/Hardware Engineer  
SANNER, Jörg (D), Associate  
TRIPICCHIO, Alfredo (I), Associate  
WEBER, Ingrid (D), Secretary

#### CHILE

GARCÍA AGUIAR, Martina (D), Mechanical Engineer

## Local Staff

(1 December 2001 – 28 February 2002)

### ARRIVALS

ESPARZA MORALES CRISTIAN, Telescope Instruments Operator, La Silla  
FAUNDEZ MORENO LORENA, Telescope Instruments Operator, Paranal  
LA FUENTE PE A EDUARDO, Telescope Instruments Operator, La Silla  
PALACIO VALENZUELA JUAN CARLOS, Mechanical Engineer, Paranal  
RIVERA MAITA ROBERTO, Temporary Site Testing, Paranal  
SOTO TRONCOSO RUBEN, Software Engineer, La Silla  
STRUNK SANDRA, Executive Bilingual Secretary, Paranal  
VALENZUELA SOTO JOSE JAVIER, Instrumentation Engineer, La Silla

### DEPARTURE

VERA ROJAS ESTEBAN, Electronics Engineer, Paranal

# LIST OF SCIENTIFIC PREPRINTS

## January–February 2002

1454. M.J. Neeser, P.D. Sackett, G. De Marchi, F. Paresce: Detection of a Thick Disk in the edge-on Low Surface Brightness Galaxy ESO 342–G017. I. VLT Photometry in V and R Bands. *A&A*.
1455. D. Elbaz, C.J. Cesarsky, P. Chaniel, H. Aussel, A. Franceschini, D. Fadda and R.R. Chary: The bulk of the cosmic infrared background resolved by ISOCAM. *A&A*.
1456. T.-S. Kim, S. Cristiani and S. D'Odorico: The evolution of the physical state of the IGM. *A&A*.
1457. D. Fadda, H. Flores, G. Hasinger, A. Franceschini, B. Altieri, C.J. Cesarsky, D. Elbaz and Ph. Ferrando: The AGN contribution to mid-infrared surveys. X-ray counterparts of the mid-IR sources in the Lockman Hole and HDF. *A&A*.
1458. Y. Momany, E.V. Held, I. Saviane and L. Rizzi: The Sagittarius dwarf irregular galaxy: metallicity and stellar populations. *A&A*.
1459. A. Franceschini, D. Fadda, C.J. Cesarsky, D. Elbaz, H. Flores, G.L. Granato: ESO investigates the nature of extremely-red hard X-ray sources responsible for the X-ray background. *ApJ*.