Fellows at ESO

Thomas Dall

Since July 2002 I have been a Fellow at ESO Chile with duties at the La Silla Observatory. It is no coincidence that I asked to be assigned to La Silla: as a PhD student I had a studentship at the Nordic Optical Telescope on the island of La Palma, and there I experienced observatory work first hand, being granted responsibility as Support Astronomer and got involved in all aspects of the observatory work. I was getting my hands dirty – and getting an appetite for more.

On La Silla I find myself in a similar, although bigger, environment. The "hands-on" experience is one of the biggest assets of working at La Silla and cannot be underestimated. I learn a lot all the time, both scientifically from interacting with the visiting astronomers and from a technical point of view by working with the rest of the staff, and by getting ever more involved in different projects. Since April 2003 I have been the Instrument Scientist for the Coudé Echelle Spectrometer (CES) at the 3.6m telescope.

The subject of my PhD was pulsations in stars, mainly δ Scuti pulsators. The main complication in the understanding of these stars is that they are very fast rotators – a fact that has falsified all modelling attempts so far. Since I came to ESO my scientific work has shifted a bit. I still study stellar structure, and I am still intrigued by rotation, but my focus is now on late type active stars, studying the relationships between rotation and magnetic fields. Also symbiotic and cataclysmic variables are now part of my world. The atmosphere on La Silla and the work with the high-resolution spectrographs has fuelled my scientific work as well as given me valuable experience with a broad range of instrumentation, and I am very glad I made the decision to come to work for ESO in Chile.

Marina Rejkuba

I became a fellow at ESO Garching in October 2002 after finishing my PhD at Pontificia Universidad Católica de Chile in Santiago. For duties I opted for Paranal science operations support. This allowed me to learn a lot about all the VLT instruments, to meet visiting astronomers and gain an overview of the science done at the VLT. For that I travel to Chile four times a year and spend 56 days and nights on the mountain. The rest of the time I spend working on my scientific projects in Garching. In this way it is easy to divide the duties and science time and take the greatest advantage of both.

Life at ESO Garching is very inspiring. The large number of seminars and colloquia and many visiting astronomers ensure that no astrophysical topic passes undiscussed. It is also a place where I can always find an expert to answer my questions and many people to discuss with and share the ideas. During my PhD I studied in detail the nearby peculiar elliptical galaxy NGC 5128, also known as Centaurus A. In this galaxy we determined the recent star formation history in the halo, studied the old stellar populations and discovered many new globular clusters and more than 1000 Mira variable stars. The Mira variables are among the most luminous stars and can be used to determine not only the distance to the galaxy, but also the age distribution of its stars. Now, I still continue working on my pet object, Centaurus A, but also extend the studies of stellar populations to Magellanic Clouds, other Local Group and more distant galaxies. The central theme of these projects is the formation and evolution history of elliptical and dwarf galaxies.

In my free time I like to read books, learn new languages, or go for a bike ride or a hike in the Alps. In Germany table games are very popular and it is never a problem to gather a keen group of players and spend a pleasant evening chatting and fighting over some board or cards.

Gijsbert Verdoes

I was born and grew up in The Hague in the Netherlands. I chose to study astronomy in the university closest to the sea and my sailing dinghy: Leiden. After my undergrad studies, I moved to the Space Telescope Science Institute (STScI) in Baltimore, USA, to start the first half of my Leiden PhD under the joint supervision of Stefi Baum and Tim de Zeeuw. I studied the centres of radio galaxies using Hubble Space Telescope imaging and spectra. Today, still one of my favorite general astrophysical topics is to find out how different galaxy evolution would have been without active nuclei or, put more bluntly, do AGNs matter?

After my PhD I moved from STScI to ESO in November 2002. I knew a bit about the American 'sharp-eyed spider' and I wanted to get to know its European sharp- and large-eyed counterpart. ESO sits in many ways at the centre of the European web of observational astronomy. I also felt quite attracted to the spider's many legs: with the Fellowship system, ESO provides plenty of opportunities to gain experience and expertise not only in astrophysics, but also in fields such as instrument and software development, outreach, and organizational matters. My functional duties started in the Science Verification team for the VIMOS instrument. This also led me to start working on something new. For possible verification projects, I asked myself what the 'redshift-machine' VIMOS could do for the 'redshiftless' Universe. This eventually led, via a regular proposal, to a nice VIMOS project on globular clusters in Centaurus A and involves a few collaborators in and outside ESO. I am now carrying out functional duties in the department of Education and Public Relations, working on educational projects. It is great fun to be forced to approach astronomy from a completely different angle.

Lastly, as a flatlander by nature, a strong fringe benefit of working at ESO Germany is its proximity to beautiful mountains. Southbound trips provide for very nice recreation over the weekends all year round. To conclude: I am very happy at ESO and can see only one unimportant question. I love to see the alpine skyline on a clear day from the top floor at ESO, but.....where are the sea and my dinghy?

Paul Vreeswijk

I clearly remember the first time I saw Paranal observatory, from the plane between Santiago and Antofagasta (note that you have to be on the side of the Andes to be able to see it). Four tiny telescopes and some surrounding buildings in an ocean of reddish mountainous desert. The perspective changes completely when arriving at the telescope platform on Paranal: an impressive array of four immense telescopes, designed for the sole purpose of observing the night skies in great detail. After a dozen weeks as an ESO fellow on Paranal, the platform site is still just as amazing as the first time.

Scientifically my main interests are the

use of gamma-ray burst (GRB) afterglows as a tool to study high-redshift star-forming regions. GRBs are distant explosions, caused by the deaths of massive stars, and the resulting afterglows in the optical can be a million times brighter than their host galaxies. But only for a few minutes, as the afterglows fade away extremely rapidly. So one has to be very quick to profit from their brightness. This requires different observing strategies than commonly used in astronomy; most objects in the sky do not change their brightness in zillions of years.

To allow rapid VLT observations of GRB afterglows, an ESO working group recommended to implement the so-called Rapid-Response Mode (RRM), the automatic mode of the VLT. As a fellow and because of my scientific interests, I'm involved in the implementation of this RRM on Paranal. I find this quite exciting: as a GRB goes off and is localized on the sky by a satellite, due to the implementation of the RRM, the VLT is now able to automatically start pointing to the GRB, and observe the afterglow within minutes of the GRB explosion. And thanks to high-precision instruments such as UVES, one can obtain detailed properties of high-redshift star-forming regions. So among other superlative statements one can make about the VLT project, one can add that it is the biggest robotic telescope in the world.

Former ESO DG Adriaan Blaauw turned 90

On April 12, former ESO DG professor Adriaan Blaauw reached his 90th birthday. Adriaan, together with many friends, family members, colleagues from The Netherlands and abroad, celebrated this occasion on April 17, during an informal get-together at the 19th-century country-mansion Nienoord in Leek, near Groningen.

Well over 200 people including ESO Director General Catherine Cesarsky, shown here with her predecessor, enjoyed a most pleasant event on a warm, sunny afternoon. The event was offered to Adriaan by his present and former colleagues from the Groningen Kapteyn Institute and Leiden Observatory, who join in with colleagues worldwide in congratulating Adriaan and his wife, and wishing them well for the years to come.

ESO at the Exploring the Frontier Symposium

Ed Janssen (ESO)

The symposium, which was co-chaired by ESO's Director General, Dr. Catherine Cesarsky, took place on 18–21 May 2004 at the Max-Planck Society's Harnack-Haus in Berlin. It was dedicated to presenting and discussing the fundamental scientific questions that will be addressed by major future astrophysical facilities during the next few decades. The meeting programme featured 11 invited reviews, 27 contributed talks and 49 posters. The meeting was attended by 160 participants from 17 countries.

ESO's presence included an exhibition/information stand with emphasis on the ALMA and OWL projects. The symposium (and thereby ESO) was presented widely in the local and international media; ESO's Director General gave several interviews, including one for a major television series on groundbreaking science. This was also a topic on the prime-time TV news on the second German channel.