

# FELLOWS AT ESO

## GEORGE HAU

I JOINED ESO IN July 2001. Until June 2003 I was Instrument Scientist for EFOSC2 on the 3.6m, whose manual I have rewritten recently (see News From La Silla). What I like most



about my work is the quality of training received. It is very refreshing to arrive at La Silla every time to know that I would learn something different but invariably interesting. The human factor is also important. I really enjoyed the interactions with the visiting astronomers and to learn about the science they are doing, and to share the excitement when the data arrives!

Apart from duties on La Silla, I was a member of the Visiting Scientist Committee in Santiago. In June 2003 I co-organised a Workshop on Resolved Stellar Populations in Vitacura.

Since July 2003 I am based in Garching with reduced duty. My research is concerned with elliptical galaxy formation at different mass scales from a low-redshift perspective. Although the trend is to go to higher and higher redshifts, I think that a lot can still be learned from nearby galaxies. At the low mass scale I am involved in a ESO Large Program on the nature of dwarf ellipticals. In the intermediate mass scale I am comparing galaxy properties in different environments, such as Kinematically Decoupled Cores and shells which often provide clues on the past merger history. At the high mass scale I am leading a collaboration to study the properties of cD galaxy halos. In several cases we found an outwardly rising velocity dispersion profile which shows that the stars in the outer parts of cD halos are responding to the gravity of the cluster as a whole. On an unrelated topic, I am also participating in an all-sky hunt for Local Group dwarf galaxies. So far we have found two dwarfs, but it seems that there isn't a big population of dwarfs in the Local Group which have been predicted in some CDM simulations.

I think that the fellowship program is excellent and I would not hesitate to recommend it to anyone who considers applying. It has been fun living in Chile and the experience has been fantastic!

## NURIA HUELAMO

I JOINED ESO IN November 2002. I was supposed to start my Fellowship in Garching, but decided to move to Chile for a short period of time. I knew the country because I had visited La Silla very often as a PhD student, and I always had the feeling that it was a nice place to live. Professionally speaking I feel I am in the right place: Vitacura is a lively institute full of special people.

As do many fellows I have my duties in Paranal. From the scientific point of view my experience could not be better: I am in touch with sophisticated instruments and it is always fruitful to discuss with visiting astronomers. Although the work can be stressful, I find the atmosphere amongst the fellows and the rest of Paranal divisions very good and collaborative, which helps to solve the problems in an efficient way. There is also time to relax and I usually visit the music room with some colleagues.

Before joining ESO I spent three years in Garching where I obtained my PhD. I was working in the neighbouring Max-Planck-Institute (MPE) and the main topic of my thesis was the study of magnetic activity and rotation in a group of young late-type stars in binary systems. Most of my thesis was based on X-ray and optical data. However, I also had the opportunity to work on adaptive optics (AO) data which I found really exciting. I started to get interested in AO techniques and that was one of the reasons why I asked to be an ESO fellow: I wanted to work with NAOS-CONICA (NACO). I made the right decision: I am learning something new every day and it is a pleasure to support top scientific research involving this instrument. As a scientist, I am leading different scientific projects with NACO which include imaging and polarimetry of young stars. Moreover, I am collaborating with the star-formation people in Vitacura. This is a very active group with astronomers working in different research fields, providing me a wider knowledge of different aspects of star formation.



## ELENA MASON

I ARRIVED AT ESO and Chile in September 2001, as a fellow with duty in Paranal. I have just started my third year of fellowship which I decided to spend within ESO too, for the simple reason that I am really enjoying both the Paranal



and the Vitacura environments. I believe that the time spent at the observatory, despite subtracting working weeks from your own research time, provides you with a competitive knowledge on top instruments, while the contact with colleagues and other scientist gives new ideas and perspectives. Indeed, I am very happy about this experience.

My research focuses on the world of cataclysmic variables (CVs) where I gained expertise both on short orbital period dwarf novae (DNe), and classical novae (CNe). In dwarf novae I study accretion discs and spectral energy distributions, continuing the research project started during my PhD. While in classical novae I am mainly studying their spectroscopic evolution. Working on CNe, I have realised the limit of current analyses, which lack systematic quantitative studies and/or modelling for a correct measurement of the ejected mass and the shell shape. I thus started new projects which either make use of new (to me) techniques (e.g. polarimetry) to investigate the asymmetries in the ejected shell, or intend to recover archive data of CN nebular spectra for a consistent determination of ejecta abundances. The expertise gained on Paranal also gave me the chance to get involved in new projects, while the lively ESO-Vitacura department offered to me chances for new collaborations. Both will help me broadening my knowledge and working field.

Living in Chile/Santiago one can profit from the Andes mountain range to do high altitude mountaineering, my major hobby during university years. Unfortunately my constantly cracking knee did not help me in a healthy active use of my free time.