

**MARKUS NIELBOCK**

MY FIRST CONTACT with ESO was a visit at the SEST on La Silla in 2000 in order to help with the installation and testing of the computer facilities for the planned bolometer array SIMBA. This matched my scientific background of early stages of star formation for which I mostly investigate in the millimetre and sub-millimetre, but also in the infrared regime of the electromagnetic spectrum. It was the team leader Lars-Ake Nyman who encouraged me to apply for the ESO Fellowship programme. At that time, I was in the middle of working on my PhD in Bochum (Germany) under the supervision of Rolf Chini, and I really had not thought about post-doc positions yet, but the prospect sounded very tempting. So, I applied and got the job. But this also meant, I had to speed up and finish the PhD within 2,5 years, since the installation of SIMBA required me to assume this new position on June 1<sup>st</sup>, 2001.

I began to study physics in Düsseldorf, but then moved to Bochum in order to be able to concentrate on astronomy. I still remember a professor in Düsseldorf claiming that those not having specialised on physics in grammar school might not be suitable for this college career. Well, this was obviously not true. I found physics in school very boring, and the topics I was interested in were not taught there. So, I helped myself by reading books like Steven Weinberg's "The First Three Minutes".

Leaving Europe and going to Santiago for a couple of years was a big step and a personal challenge for me, but definitely a rewarding one. What I liked most was the large variety of scientific disciplines besides astronomy (cryogenics, microwave engineering, software programming, computer system maintenance) I got in contact with, especially at the SEST, where everyone did almost everything. During the more than 2 years (until its closure in August 2003), I was also in charge of the operations and data quality management of the newly installed bolometer array SIMBA attached to this 15-m millimetre telescope. Also the contact with colleagues, guests and visiting observers was very inspiring.

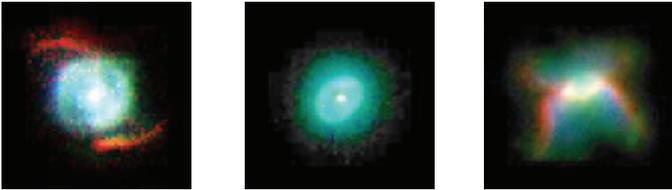
Despite the amounts of functional work at the observatory, there was ample time to pursue my own scientific interests in ESO-Vitacura. I am mostly interested in the formation of stars, both in the low-mass and the high-mass range. In order to probe the earliest stages of the protostellar collapse and thereby look for protostars, I mainly use millimetre and submillimetre telescopes which made me a bit exotic among the scientists in Santiago. Already in my PhD thesis I reported on the detection of numerous low-mass protostars and determined their physical properties. Recently, I started to concentrate on the higher end of the mass scale with two projects. The first one deals with the investigation of masers in star forming regions. They are of potential value for locating young massive protostars. The other programme is about the recent first detection of a massive accreting protostar. This is the work of a group of German and Austrian astronomers in which I participate. As a next step, we need to constrain the properties of our find more precisely.

After more than two years living in Santiago, I returned to Bochum in September 2003. But I am looking forward to visiting Chile for observations next year.

ESO WORKSHOP ON

## PLANETARY NEBULAE BEYOND THE MILKY WAY

ESO Headquarters, Garching, May 19-21, 2004



Planetary nebulae (PN) can be detected out to quite large distances from their strong emission lines, principally of [O III]. Photometry of the [O III]5007Å emission line allows distance determination through the Planetary Nebula Luminosity Function. Spectrophotometry of the emission lines can provide nebular abundances, enabling the use of PN as chemical probes of galaxies. The emission lines are also narrow, making PN ideal kinematic probes of a galaxy's gravitational potential. Thus the properties of dark-matter haloes can be studied by modelling the PN kinematics. Recently PN have been detected in intra-cluster regions of nearby galaxy clusters. These PN can bring a unique handle on the stars in regions that may harbour a substantial amount of mass.

Extra-galactic PN serve as versatile probes of nearby galaxies. Planetary nebulae have traditionally been regarded as bright objects; however in the Local Group, and beyond, they can be faint. Large telescopes thus open up the field of extra-galactic PN study. HST and Adaptive Optics can provide images of PN in the LMC and SMC, at resolutions previously expected for Milky Way PN. New instrumentation is also being exploited to measure PN spectra in bulk. The field of extra-galactic PN research is developing rapidly and a conference to review the progress so far and to chart new developments is now timely.

This will be the first full workshop dedicated to the subject of extra-galactic planetary nebulae.

The format of the meeting will consist of invited reviews, in the key areas of extra-galactic PN research, contributed talks and posters, and two discussion sessions.

Central topics will include:

- Surveys for extra-galactic PN
- The PN luminosity function
- PN in the Magellanic Clouds
- Observational dynamics and modelling of PN in galaxies
- Nebular abundance determinations in PN
- PN as probes of galactic chemical evolution and star formation history
- PN in galaxy clusters

Scientific Organising Committee:

M. Arnaboldi, R. Ciardullo, N. Douglas, K. Freeman, G. Jacoby, R. Mendez, R. Shaw, L. Stanghellini (co-Chair), G. Stasinska, J. Walsh (co-Chair)

Full details, list of invited speakers and registration information can be retrieved from <http://www.eso.org/extgalpn04/> or by email to [pnconf04@eso.org](mailto:pnconf04@eso.org)

Deadline for first registration: 31 January 2004  
Final deadline: 15 April 2004