ESO — whether in astronomy, technology, or engineering, how they had arrived at their current positions in the field, and current topics in astronomical research. After lunch, the visitors split into groups to try their hand at astrophysical exercises and calculations, observe the Sun with the help of volunteers from ESO's AGAPE group, tour the building and visit laboratories, and ask a representative from Human Resources about careers at ESO. Finally, a live question-and-answer video connection to the VLT on Cerro Paranal let the students directly "visit" ESO's observatory site in Chile.

Girls' Day was an excellent opportunity for girls to discover the scientific, technological and engineering work of ESO. The feedback and questions asked made it clear that the students were inspired by what they saw, and many thanks are due to the enthusiasm and hard work of the volunteers who put the Girls' Day programme together.

Links

Girls' Day in Germany: http://www.girls-day.de/

English information about Girls' Day in Germany: http://www.girls-day.de/English_Information

New Staff at ESO

Julien Girard

I am quite surprised to actually be writing this note for the Messenger. A couple of years ago I would never have believed I would be sitting in the VLT control room so often, understanding a lot of the stuff that's going on there, sometimes firing the laser out into the beautiful sky ...

Although my family was tremendously big, there weren't many scientists and I think I only got to look through a telescope once during my first ten years on Earth. One of my mom's uncles had a Meade 200 and we looked at the Moon. Since I showed an interest he actually wrote in his will that I should inherit the telescope. I did. But living in a city apartment, and spending most of my free time on ski slopes, sports fields and in violin classes, I am very ashamed not to have used the telescope much. Now as a professional astronomer, I have a growing amateur interest and one of these days I will definitely let my kids look through this telescope!

As I grew up — in the "middle-east of France" — I was always attracted by science and technology. I studied physics in college with a focus on physical measurement and instrumental techniques. This undergraduate experience in France fostered my interest in understanding physical processes through measurement and mastering the instruments and methods used. I then completed a Master's degree in instrumentation physics at the University of Utah (USA), following on from my first degree. At Utah I carried out a research project for the High Energy Cosmic Ray group led by Pierre Sokolsky. Supervised by Lawrence Wiencke, I built a fiber-optic based calibration system for a giant cosmic ray observatory using the air fluorescence technique (the one that inspired the extensive air shower detectors of the Pierre Auger Observatory). This nice work and life experience motivated me to do research and study towards a PhD. Attracted by astronomy, I went for a second Master's degree in astrophysics in Grenoble (France) and learned the basics in many astronomical fields such as star formation and evolution, interstellar matter, galactic dynamics, cosmology, high angular resolution techniques, etc.

But clearly, I wanted to work closely with instruments so I chose my Master's thesis project on integrated optics component tests for interferometric beam merging (at LAOG/CEA in Grenoble). Then I was awarded a three-year scholarship to pursue full-time research in the AIRI team (Astronomy and Interferometric Resolution Imaging) at CRAL (Lyon) under the supervision of Renaud Foy. My PhD work

Julien Girard and family

was on the polychromatic laser guide star project ELPOA which aims at making diffraction-limited AO (adaptive optics) possible at visible wavelengths with full sky coverage. In fact, Renaud was the first (together with the well-known Antoine Labeyrie) to propose the artificial laser reference star concept to the astronomical community in 1985. I then worked for three years in Mexico City, first as a postdoctoral fellow at UNAM's Institute of Astronomy and then as a Professor at Instituto Politecnico Nacional (IPN). I completely embraced the country, melted in, had my wonderful "FrenXicán" daughter and got married with live musicians playing Huapangos Huastecos (songs

from the Huasteca region near the Gulf of Mexico). On the scientific side, I gravitated more towards observational astrophysics and somewhat less to instrumentation.

Since August 2009 I have been working as an Operations Staff Astronomer at ESO, spending my time between Santiago and the Paranal Observatory. I support night-time operations at UT4 (Yepun) where most adaptive optics systems are situated and recently became NACO instrument scientist. I am also trying to coordinate the activities of a revived Adaptive Optics group at ESO/Chile. The remaining time is dedicated to my personal research or R&D projects, collaborations, etc. For me, it's great to be working at the VLT where so many colleagues visit from everywhere in the world. I am trying to use my instrumental background to better serve the observatory's needs and allow the users to achieve their scientific goals. I get to learn a lot from them as well and eventually participate in some projects. The commissioning activities with Garching staff or consortia people are fun and intense work periods which I enjoy particularly. Operating such great instruments and executing OBs for these amazing programmes is thrilling. Sometimes I switch from a direct exoplanet hunt to an Einstein Cross-like lensed quasar, or zoom into the dust of the radio galaxy Centaurus A. Viewing a flare in the Galactic Centre "live" (though happening about 26 000 years ago) is also something which would move any astronomer. My astrophysical interests are broad and I am currently involved in very diverse projects involving high contrast and high angular resolution imaging and spectroscopy in the near-infrared. They range from searches for faint companions (brown dwarfs and giant exoplanets) to young stellar objects and even to AGN characterisation. I like to bring people together and motivate them to reach common goals. I think modern astronomy implies international collaborations and team work.

In Mexico I also became more and more interested in public outreach. As 2009 was the International Year of Astronomy, I produced a photographic exhibition called *Ella es Astrónoma* about women astronomers. This project was a great success (more information can be found on my web page: www.sc.eso.org/~jgirard/astronoma). I think that science, and astronomy in particular, isn't completely useless to society. As professionals we must pass on our knowledge and fill the young, and not-so young, public with wonder. I am also fond of photography, anthropology and traditional music from everywhere. I hope one day to bring my passions together through the organisation of popular events, why not ...

Nevertheless I think as observational astronomers we have the greatest, though most bizarre, job. We live at night in awkward places, seeking photons which we turn into intelligible (to some of us only) FITS files. I find it difficult to spend so many nights on the mountain, far away from my family in Santiago and even further away from my family in France and my wife's family in Mexico. As I am finishing this note, my eight-months pregnant wife could call anytime and ask me to rush back to Santiago if serious contractions were to start ... But I've just celebrated my 100th night at the observatory and there isn't a single day or night I spend there without having at least one "eureka moment", something that amazes me (like the clearest southern sky), or something I suddenly come to understand. This is what makes me love my job and hopefully it will keep on happening.

Willem-Jan de Wit

For the best part of the past decade I have held various post-doc positions in Europe. All were related to Galactic star formation and the physics of young stars, and gradually my work evolved towards high angular resolution observations and especially optical interferometry.

I started out as an astronomer performing photometry and spectroscopy on my favourite targets. I graduated from the University of Utrecht in 2001. My PhD was blessed with having two fantastic supervisors: Henny Lamers and Jean-Philippe Beaulieu. Shared supervision can sometimes lead to friction and even conflict, but not so in my case. The acute scientific insight and strong social abilities of my supervisors created a friendly

Willem-Jan de Wit

but sharp scientific atmosphere in which there was a strong sense of "teaming-up" in order to solve the open issues.

I moved to Arcetri in 2002, where I obtained a post-doc position within the European Research Training Network "Young Stellar Clusters". A better place than Florence Observatory is hard to find, either scientifically or socially. Living the Italian-style life in Tuscany is fantastic, and doing astronomy in this setting makes it even more so. Florence is special to me for another reason as it is the city where I met my wife and where we got married. In the communicative and stimulating environment of Arcetri, I continued to work on star formation issues, in particular the ones related to the formation of stellar clusters and massive stars.

In the third quarter of 2004, I traded Arcetri for LAOG in Grenoble. If Florence equals history and culture, then Grenoble equals natural Alpine beauty and all its sporting opportunities. This was not a bad trade. In those days, LAOG was abuzz because the AMBER instrument had just been successfully paranalised (first UT fringes in May 2004). My new job was dedicated part-time to the use of AMBER in the study of young stars. It was the start of my interferometric adventure that eventually would provide me with my current job as VLTI staff astronomer. My part-time involvement in AMBER convinced me, as a non-interferometrist, of the indispensable benefits of observations at (sub-)milliarcsecond resolution to

properly answer longstanding open questions related to, in particular, massive star formation. LAOG provided the opportunity to make me feel comfortable with optical interferometry and to start exploiting the VLTI to do my science. All this, while enjoying the green pastures of Le Vercors and the Belledonne.

The interest in using the VLTI to study massive star formation I shared with the astronomers at the School of Physics and Astronomy at the University of Leeds. At a conference in Catania (2005), I established first contact with that group. This eventually led to a move to England in autumn 2006. At Leeds, I took up a post-doc position that was 100 % dedicated to doing high angular resolution observations of massive young stellar objects. The Leeds group manages to provide an ambitious scientific environment where the Friday-afternoon (or any day really) pub visit is part of a healthy standard protocol. My stay in Leeds turned out to be a very fruitful period in my career in which my interests in optical interferometry continued to develop and expand. This path went naturally hand-in-hand with an increased experience with the VLTI facility.

Last February, together with my wife and two-year old son I moved to Chile in order to take up a position as VLTI staff astronomer. To my mind, in the last couple of years, the VLTI has shown its abilities to provide the community with unique astronomical observations at mind-boggling angular precisions, leading to impressive breakthroughs in a range of areas in stellar astrophysics. With the advent of PRIMA, the imminent arrival of PIONIER and the future second generation instruments, the impact the VLTI will continue to have on the advancement of astronomy and our understanding of astrophysics will be invaluable. I am sincerely grateful that I can be a part of this ongoing effort.

Fellows at ESO

Nadine Neumayer

Looking at the crystal clear winter night skies I so often enjoyed – growing up in the middle of nowhere in south-west Germany – I always asked myself where all “this” comes from and where it will all go. I was fascinated by the fact that our planet Earth is just a tiny blue dot orbiting a star amongst millions of stars in a galaxy amongst billions of galaxies in a possibly endless Universe. This thought still blows my mind, and makes me want to learn more about the origin and evolution of the Universe.

After high school I wanted to find out what the life and work of an astronomer would be like. So I travelled to Chile to visit the La Silla Observatory (Paranal was still under construction at that time). Little did I know that I would end up working at ESO!

With a deep wish to become a professional astronomer, I went to the University of Heidelberg for my undergraduate studies. Afterwards I moved to Cambridge, in the United Kingdom, for one year to take Part III of the Mathematical Tripos. It was during that time that my interest in black holes arose. Back in Heidelberg I finished my Diploma (MSc) with the thesis that led to my first publication – signed with my maiden name Nadine Häring. I had found my heart in Heidelberg and stayed at the Max-Planck Institute for Astronomy for my PhD, studying the nucleus of Centaurus A in great detail.

Half way through my PhD I had my first daughter, Johanna. With the great support of many people and a fellowship from the Christiane Nüsslein–Volhard–Foundation, I finished my PhD thesis at the beginning of 2007, already knowing that I would start an ESO Fellowship at the end of the year. My second daughter, Lena, was born just a few months before I started my Fellowship at ESO. Luckily, ESO contributes to a daycare unit together with the neighbouring Max-Planck Institutes, and I was more than happy to receive confirmation that both girls had a place there.

Nadine Neumayer

My research focuses on the co-evolution of black holes and galaxies and I am especially interested in how black holes get to the centres of galaxies in the first place. Along with my research I also have functional duties at ESO where I am involved with the education and Public Outreach Department, and I am part of the VISTA Science Verification Team. I am also co-organising the monthly Wine and Cheese Seminar, which has allowed me to interact with many visiting as well as ESO astronomers.