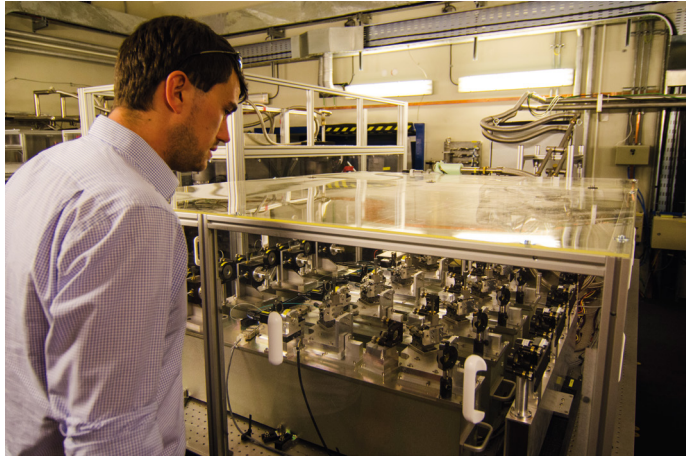


potential target stars, I was able to visit La Silla Observatory many times throughout my studies.

During the course of my PhD thesis I additionally spent two years at ESO in Garching working for the PRIMA facility, which was undergoing its commissioning phase at the VLT Interferometer. I worked especially on a new observing mode for the MID-infrared Interferometric instrument (MIDI), where one of the two PRIMA fringe sensor units (FSU) are used to stabilise the interferometric *N*-band signal in MIDI. This observing mode pushes the sensitivity limits of MIDI down by at least a factor of five and allows for simultaneous visibility measurements in *K*- and *N*-bands.

My studentship at ESO Garching included the possibility of visiting Paranal Observatory and working directly with the impressive facility of VLTI. With all the hands-on experience I had gained during the course of my PhD thesis I decided to apply for an ESO Fellowship in Chile in order to regularly work with and operate one of the largest and modern telescopes in the world at the Paranal Observatory. As part of my duties at the observatory, I



André Müller

have supported operations and observations at the VLTI over the last two years. As a MIDI Fellow I have been able to dig deep inside the instrument with respect to hardware and software, while also commissioning the new MIDI + FSU observing mode and characterising it. At the VLTI we mainly use the 1.8-metre Auxiliary Telescopes because they allow us a flexible configuration, as their positions can be adjusted. However, my favourite is still when I have the opportunity to combine the light received by

all four 8.2-metre Unit Telescopes. Those are some of the most thrilling moments for me.

When I leave Paranal for my next position next summer, I will remember my time in one of the driest places on Earth, yet only 12 kilometres away from the largest ocean, with gratitude. It is this juxtaposition mixed with the clear night sky of the Atacama which have made my Fellowship here at ESO Chile a truly remarkable experience.

External Fellows at ESO

In addition to the ESO Fellowships, a number of external fellows are hosted at ESO. A profile of one of the current Marie Curie Fellows is presented.

Kate Maguire

I grew up in Dublin, Ireland and had decided from a young age I wanted to be either the president of the United States or an astronaut (perhaps both — I can't quite remember). The first dream was dashed when my Mum told me you couldn't be president of the US unless

you're an American citizen, and the second when I found out that they prefer to send medical doctors or fighter pilots into space. Neither of which seemed appealing to me as I had always been fascinated with science.

When applying to universities I couldn't make up my mind which science subject interested me most. Therefore, I chose to study Science at University College Dublin to obtain a broad scientific knowledge. After two years, I decided that I was most interested in physics and chose a major in experimental physics. While I

really enjoyed the course and the physics topics it covered, it also involved spending a lot of time in the lab twiddling knobs and adjusting dials.

If that had been my only experience with physics research I think my research career might have ended there. However, during the third year of my undergrad, one of my lecturers offered the class the thrilling prospect to spend a summer working as an intern at NASA Goddard. I applied and was selected — it was this experience that completely changed my opinion of research. During this amazing

summer, I got to experience, first hand, a really exciting scientific working environment at NASA, visit the instrument testing facilities, as well as work on new data from the Solar and Heliospheric Observatory (SOHO), looking at the formation of active regions on the Sun. I discovered that I really enjoyed doing astrophysics research and that this was what I wanted to do as a career.

I began a PhD in Astrophysics in 2007 at Queen's University Belfast under the supervision of Stephen Smartt, working on understanding the properties of core-collapse supernovae. This gave me many great opportunities to travel, to observe at telescopes, and attend conferences around the world. During the first year of my PhD, I got my first chance to observe at the William Herschel Telescope in La Palma. Despite not having great weather, I was immediately hooked by the excitement and thrill of observing at a telescope.

After I finished my PhD in 2010, I took up a postdoc position at the University of Oxford. I continued my work on super-



Kate Maguire

novae, changing fields slightly to focus on Type Ia supernovae and their use as cosmological distance indicators. I worked as part of the Palomar Transient Factory, one of the leading astronomical transient discovery surveys operating at the Palomar Observatory. This came with all the excitement and strange working hours you might expect, when you do research in a field as unpredictable as exploding stars.

Oxford was an amazing place to work and a beautiful city. However, at the end of three years, I was ready to move on to the next adventure. I was delighted when I found out that my Marie Curie Intra-European Fellowship application had been successful and I would be moving to work at ESO, Garching.

I started at ESO in October 2013 and from day one, I've loved it here. My research focusses on understanding the stars that explode as Type Ia supernovae and how we can improve the supernova samples obtained with future cosmology missions. ESO is a really special place to work, with its vibrant international staff, loads of interesting talks and events to attend, and the broad range of astrophysical and technical expertise on hand. It has given me great insight into the workings of a world-leading observatory. I'm also fortunate to collaborate with some great researchers working in the field of supernovae at ESO and on the Garching campus. I am looking forward to making the most out of my remaining two years here in Munich and then who knows where my next adventure will take me.

ESO/José Joaquín Pérez



Star trails across the 15-metre dish of the now decommissioned Swedish ESO Submillimetre Telescope (SEST) at La Silla. The SEST was the first submillimetre telescope operated by ESO, from 1987 until 2003. See Picture of the Week for 22 September 2014.