

Philippe Dierickx



Jerry's plethora of TMT (Ten Meter Telescope, before it became Keck) technical notes, in areas ranging from optics, mechanics, electronics and control are a treasure trove for all telescope builders. Jerry had a long collaboration with Terry Mast and Gary Chanan as well as with the large and dedicated team of engineers and scientists who made Keck the success that it has undoubtedly been. In addition to the many honours that the astronomical community bestowed upon him, Jerry shared the Kavli prize in astrophysics (with Roger Angel and Ray Wilson) and was awarded the Benjamin Franklin Medal in Electrical Engineering, the André Lallemande Prize of the French Academy of Sciences, and the Dannie Heineman Prize for Astrophysics of the American Astronomical Society.

Jerry Nelson seen through an uncoated mirror segment of the Keck Telescope in 1994.

Jerry followed his Keck success by leading the adaptive optics efforts at the University of California and being the project scientist for the 30-metre CELT (California Extremely Large Telescope, later merged with the Very Large Optical Telescope [VLOT] and the Giant Segmented Mirror Telescope [GSMT] into his second TMT — the Thirty Meter Telescope).

As ESO proceeds with the construction of its 39-metre segmented mirror telescope, we acknowledge an enormous debt of gratitude to Jerry for the transformational success of his endeavours, and for giving astronomy a path to ever bigger telescopes.

Jerry was gifted with insatiable curiosity, armed with a beautiful mind, and endowed with endless enthusiasm. The telescope world will sorely miss his leadership and his willingness to help and advise, as well as his perennial smile.

DOI: 10.18727/0722-6691/5046

Fellows at ESO

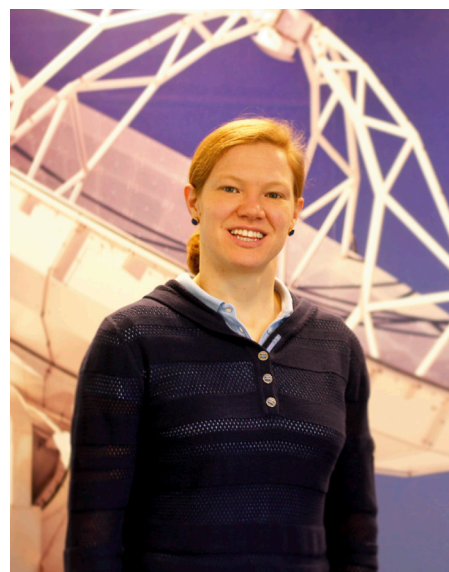
Adele Plunkett

My story does not begin with "Since I was a child, I looked at the sky and wanted to be an astronomer." Instead, when I was a child growing up in Texas (USA), I was looking in a million directions and I had no idea what I wanted to be when I grew up. Admittedly, I still don't know. When I was a child, I knew that I liked maths and science. I also liked languages and travelling. I didn't know how I could fit these "likes" together, but I've found that the coincidences of life bring them together naturally.

My journey to become an astronomer has made several stops in Chile, from where I write this piece today nearly 10 years after I first heard about it in 2008. In 2008, during the third year of my physics undergraduate programme, I spent seven

months as an exchange student in La Serena, in the *norte chico* (small north) of Chile. I enrolled in the Universidad de La Serena, with three diverse courses on archaeo-astronomy, electrical circuits, and Chilean economics. I did not know that Chile hosted some of the most important telescopes in the world, but I soon learned as I participated in an undergraduate research programme hosted at the Cerro Tololo Inter-American Observatory (CTIO) and funded by the US National Science Foundation.

My first astronomy research project at CTIO studied chemical abundances of Pleiades stars, with Simon Schuler. I was fascinated when someone pointed out the Pleiades cluster that I could see with my naked eye one night, and the next day I was analysing spectra of those stars on the computer. The same semester, I



Gabriel M. Gallegos, Public Affairs Intern, US Embassy Santiago

Adele Plunkett

was fortunate to be invited to observe at CTIO with Frank Winkler from Middlebury College, my home university in Vermont (USA). Frank was an observer in the purest sense of the term, and during long integrations at the telescope he oriented me to the night sky by eye. The data obtained during those observing runs sparked the plan for my undergraduate thesis project — a study of supernova remnants — which I would complete the following year upon return to Middlebury.

At the CTIO library, I devoured books about the first telescopes in Chile, intrigued by the adventures of site testing, arriving by donkey, and camping on virgin mountaintops. Since the beginning, astronomy in Chile has been an international and collaborative endeavour, and I developed a belief that science brings countries and cultures together in a special way. I had entered Middlebury thinking I would study international relations, and through the physics degree and astronomy research I found myself immersed in international initiatives.

Next I enrolled in the PhD programme at Yale University (USA), where the astronomy department has a joint agreement with the Universidad de Chile in Santiago. Chasing the latest international telescope projects, I chose a thesis with Héctor Arce that would use ALMA observations to study protostellar outflows. We made some preliminary observations with CARMA where I learned interferometry, and during the time of ALMA Early Science, I spent 18 months in Santiago with funding from a Fulbright fellowship. I worked with Diego Mardones at the Universidad de Chile, and I participated in ALMA Commissioning and Science Verification with Alison Peck and Richard Hills (and the entire ALMA Commissioning Science Verification team, of course).

Thanks to the Fulbright Fellowship from 2012, I developed a connection with the US Embassy in Chile, and I was able to participate in various “diplomatic” and educational outreach events. Diplomacy was also happening all the time within the ALMA project. The ALMA control room is a unique place where English, Spanish, and Japanese (among other languages) are spoken, while an international team operates an amazingly powerful, com-

plex, and expensive telescope. To me, the *sala de control* (control room) is incredible because it is where so many of my interests come together. Did I mention that in high school I had studied Japanese?

I finished my PhD in 2015, when I came to ESO as a fellow with duties at ALMA. As a US citizen with a European contract, living in Chile and working for an international telescope project, I have become a sort of scientific ambassador. My childhood interests in maths, science, language, and travel led me to this position, although the journey was not so clearly defined and along the way I accrued many frequent flyer miles (thanks to generous support from several government agencies!).

Hsi-Wei Yen

As far as I can remember I started to be interested in science, particularly astronomy, when I was a kid. I became fascinated by a book about space missions, shuttles and astronauts in the public library near my home. Strictly speaking, that is totally different from what I am working on now. Nevertheless, I did not do anything more extraordinary for my interest in astronomy besides occasionally reading books or magazines about science and astronomy. At that time, playing and watching TV were the most important things to me. Life was just normal until I entered senior high school.

There was an astronomy club in my high school and I was immediately attracted to it as I had been interested in astronomy for a long time. That was my first opportunity to get involved in amateur astronomy. The club was organised by a small group of students who loved astronomy. We had a 10-cm refracting telescope, a 20-cm reflecting telescope, equatorial mounts and cameras. These instruments were all bought and donated by former members. I remember I also saved money and donated it to the club. With the donations from all the members in that year we were finally able to buy a new equatorial mount and replace the old one. We really participated in the club with passion. Together with astronomy clubs in other high schools, twice a year



Hsi-Wei Yen

we invited lecturers and organised talks, like a small workshop, for three or four days. In addition, every two or three weeks we took our instruments to mountains, found places without light pollution (which is relatively difficult in my home town of Taipei) and observed the night sky. I even knew how to recognise almost all the constellations on the sky, though I have totally lost that skill now.

After the fantastic years at the astronomy club in the high school, I entered the physics department in the National Taiwan University. It was a simple decision for me to select physics as my major. First, I was interested in science, especially fundamental science. Second, I actually had no plan for my future career and I thought that as a physicist there could be many options for future career. After my first two years in college, I realised that physics and mathematics are very difficult. I was not sure whether I could stay in the field for my future career after graduation or not.

Fortunately, I met my first mentor in my astronomy career in that year, Paul T. P. Ho. He was the director of the Academia Sinica Institute of Astronomy and Astrophysics (ASIAA). He organised a journal club particularly for undergraduate students, which I joined. There were about five students. We met every weekend. I still remember the first paper we read and discussed: the classical review paper of star formation written by Shu, Adams, and Lizano in 1987. After that, we chose papers ourselves and introduced them in turn. I was deeply attracted to astronomi-

cal research. As astronomers, we have the biggest laboratory in the world: the entire Universe. In most cases, the only experiments that astronomers can do is to observe. From the limited information obtained from observations, astronomers try to find underlying physics. That process is fascinating to me.

Then, by answering an advertisement from Paul Ho, I joined the summer student programme at ASIAA in my third year of college and started my first scientific research project. I worked with a postdoc on the Spitzer IRAC data of an H II region to study whether the H II region triggers the surrounding star formation activities. After the summer student programme I continued to work at ASIAA on a different topic with Nagayoshi Ohashi and Shigehisa Takakuwa, who later became my thesis supervisors. When I was in the fourth year of college I had taken most of the required courses so I spent time at ASIAA doing research. My project was

about gas kinematics in a young, low-mass protostellar source observed with the Submillimeter Array (SMA).

After I graduated from the physics department, I entered the Graduate Institute of Astrophysics in the National Taiwan University. My PhD thesis project was about observational studies of low-mass star-forming regions with the SMA and single-dish radio telescopes. In my third year of the PhD programme, the Atacama Large Millimeter/submillimeter Array (ALMA) came online. It was a really exciting moment to see images of star-forming regions with unprecedented sensitivity. In particular, I had SMA and ALMA images of the same source on the same scale so I could see how powerful ALMA is, and that was just cycle 0 with the limited number of antennae and baseline lengths! I was very impressed and excited about the future of my research field. After I received my PhD I worked at ASIAA for three years in my first postdoc position. Then I moved to

ESO Headquarters in Garching as a fellow in 2016.

Here in Germany, the environment and culture are very different from those in Taiwan, my home country. I found it difficult to settle down at the beginning but now I enjoy life here very much. I feel very excited to be working at ESO. My favourite part is its diversity. At ESO, there are so many experts from different fields and with different expertise. This creates a lot of chances to gain new knowledge about astronomy. With new collaborations and access to the Very Large Telescope, I started a new project in the infrared. This aims to probe the inner regions (a few au) around protostars, and will provide complementary information to my previous studies at radio wavelengths. With the opportunities here I am also extending my research from star formation to protoplanetary disks and planet formation. Several exciting new projects have started and I am looking forward to obtaining new data and making new discoveries.

Personnel Movements

Arrivals (1 July–30 September 2017)

Europe	
Alas Da Cunha Dias Da Silva, Nelma (PT)	Administrative Assistant
Anderson, Richard (DE)	Fellow
Aoki, Misa (JP)	Student
Aros Pinochet, Francisco Ignacio (CL)	Student
Barcons, Xavier (ES)	Director General
Bhattacharya, Souradeep (IN)	Student
Hamanowicz, Aleksandra (PL)	Student
Hopgood, Joshua (UK)	Detector Engineer
Jerabkova, Tereza (CZ)	Student
Kellerer, Aglaé (FR)	Optical Engineer
Lapeyre, Pascal (FR)	ELT DMS Site Manager
Manara, Carlo (IT)	Fellow
Mancino, Sara (IT)	Student
Scholtz, Jan (CZ)	Student
van de Ven, Glenn (NL)	Astronomer
Verinaud, Christophe (FR)	AO Physicist/Analyst

Chile

Angel, Maria Ester (CL)	Secretary/Technical Assistant
Garcés, Eduardo (CL)	Instrumentation Engineer
Minniti, Javier (AR)	Student
Paladini, Claudia (IT)	Operation Staff Astronomer
Razza, Alessandro (IT)	Student
Sedaghati, Elyar (IR)	Fellow
Thomas, Romain (FR)	Fellow

Departures (1 July–30 September 2017)

Europe	
Bristow, Pamela (UK)	Scientific Reports Typist
de Zeeuw, Tim (NL)	Director General
Ellis Richard, (UK)	Visiting Senior Scientist
Geeraert, Patrick (BE)	Director of Administration
Hallakoun, Naama (IL)	Student
Immer, Katharina (DE)	Fellow
Kakkad, Darshan (IN)	Student
McClure, Melissa (US)	Fellow
Popping, Gergely (NL)	Fellow
Szécsényi, Orsolya (HU)	Contract Officer
Visser, Ruud (NL)	Fellow
Walsh, Jeremy (UK)	Astronomical Editor
Xu, Siyi (CN)	Fellow

Chile

Aubel, Karla (CL)	Telescope Instruments Operator
Girard, Julien (FR)	Operations Astronomer
Pantoja, Blake (US)	Student