Fellows at ESO



Andrés Jordán

Andrés Jordán

I studied physics at the Universidad de Chile in Santiago, where I was born and raised. I then moved to Rutgers University in the US, where I obtained my Ph.D. under the supervision of Pat Côté. During this period I started working on the ACS Virgo Cluster Survey, a project in which I have been deeply involved since.

After finishing my Ph.D. in 2004, I moved across the pond to take up my fellowship at ESO Garching. At ESO I have continued and expanded the work I started during my Ph.D. I am now concentrating my efforts on the ACS Fornax Cluster Survey, a project which I lead and which extends our Virgo HST observations to the Fornax cluster of galaxies. I am currently particularly interested in the the properties of the inner regions of galaxies, which are teeming with supermassive black holes and nuclear star clusters.

While at ESO I have had the experience of working in a very stimulating environment. I have witnessed the development of the ELT with all its intricate dependence on scientific and political issues. In passing, I have also learned to value things in a new ESO currency: an ELT mirror segment. During the last few years I have had the opportunity to work closely with students, fellows and staff, and to teach at the NEON school. It is seldom that in one place one can experience

such a broad array of aspects of life as an astronomer, from teaching to the development of the next large European astronomical project.

My days at ESO are sadly coming to an end, and in September I will move to the Harvard-Smithsonian Center for Astrophysics to take up a Clay fellowship. One more summer for Biergärten!

Paul Lynam

Midway through a Chile-based fellowship, I share my time between Paranal Science Operations and trying to understand the environments and properties of giant galaxy formation.

Aged seven, I witnessed a spectacular green fireball roll above the evening twilight horizon, dropping sparks and swinging flickering shadows silently across the ground. While trying to learn about this event, I became enchanted by the images of nebulae and galaxies and it became my ambition to be a regularly observing 'Gentleman Astronomer', like the Irish Earls of Rosse.

The local astronomical society fostered my interest until university studies in observational astronomy and applied physics, followed by a space science master's thesis assessing the danger of meteoroids to spacecraft.

En route to a Ph.D, I performed sensitive photometry of giant elliptical galaxies in an all-sky survey of ROSAT-selected clusters at various worldwide observatories. The resulting measurements are used as motion indicators in 'peculiar velocity surveys'. Any coherent motions of these objects are called 'cosmic flows' and potentially reveal huge mass concentrations, 'great attractors', which must gravitationally induce the flow. If detected, large-scale flows challenge modern cosmology and confuse our current idea of an accelerating Universe.

My interest in observing the populations of galaxy clusters continued while based at the Max-Planck Institute (MPE) in Garching, before developing software for the ESO Imaging Survey at the neighbouring ESO headquarters.

With the opportunity to work at Paranal, my childhood ambition was fulfilled: like the Earls of Rosse, I regularly observe with the most advanced telescope of the age. The forefront science, the scale of operation, the team maintaining the elegant nocturnal ballets of this engineering masterpiece in a hostile environment, all contribute to Paranal's special appeal.



Paul Lynam