

Road to the stars, promoting the ESO Chile fellowships.

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Abstract

The European Southern Observatory (ESO) invites applications for the ESO-Chile Fellowship Programme every year around mid-October. The Programme provides a unique opportunity for young scientists to develop their independent research programs and successfully reach the next step of their scientific careers. With this contribution, we aim at promoting the ESO-Chile fellowship among the Spanish and Italian community. ESO Fellowships in Chile are granted for 4 years. During the first three years, the Fellows are assigned to one of the Science Operation groups of Paranal or ALMA, where they contribute at a level of 80 nights per year, corresponding to 50% of the working time. ESO Chile Fellows may choose to spend the fourth year at any astronomy/astrophysics institute in an ESO member, Chile or ESO's strategic partner, Australia, with 100% of their time devoted to scientific research. ESO Chile Fellows will benefit from developing their scientific profiles and becoming mature and independent researchers in a rich, collaborative and structured environment. In summary, this unique mix of technical knowledge and their close contact with the science carried out at the Observatories, ESO Chile Fellows can build a solid research programme that can boost their future career.

1 Introduction

The ESO fellowship program has been running since 1977. It is one of most recognized postdoctoral positions and an important component of ESO's mission, with positions open both in Germany and Chile. In the latter, ESO offers 5 to 6 positions every year open for young postdocs, who can spend part of their time working at ALMA or Paranal and carry out their independent research in the Vitacura premises in Santiago. These positions are open to all nationalities but preference is given to nationals of ESO member states.

2 The ESO Fellowship Program

The ESO Fellowship is a postdoctoral position for young researchers that can develop an independent research in combination with working at the ESO facilities and acquiring large

technical experience operating state-of-the-art instrumentation. With time, the fellow will also have the possibility to train new arrivals to the team.

During the duration of the position, the fellow will be part of the Office for Science which has a generous budget to support the fellow in travelling to conferences, science leaves or observing runs. In addition, the fellow have the possibility to co-supervise and mentor students or interns.

3 The ESO Fellowship in Chile

ESO operates 3 observatories in Chile: ALMA, La Silla and Paranal with about 70 staff and fellows which complement a larger team of engineers, students and colleagues working in administration and logistics. Around 300 people are currently working in Chile, divided between the observatories and the Vitacura campus in Santiago, where we have the ESO and ALMA headquarters.

The ESO Fellowship in Chile is a 4 years contract. During the first 3 years, fellows will spend up to 50% of their working time performing duties either at ALMA or at Paranal. This corresponds to up to 80 nights per year. The remaining 50% of the working time to carry on and independent research.

During the 4th year, the fellow have different possibilities that they can choose according to their convenience:

- The fellow can decide to stay in any institution of any ESO Member State, Australia (as strategic partner) or in a Chilean institution, doing 100% research time.
- The fellow can also choose to stay at ESO Chile doing 25% operational duties (up to 40 nights) and 75% research.

There are 5 - 6 positions opened per year that are divided between Paranal and ALMA. The number of positions assigned to each observatory changes every year based on the observatories needs. The functional duties are mostly on-site for Paranal and partially on-site for ALMA, which is currently running many operations remotely from Santiago. These duties are performed in shifts: typically 8 days/nights in the case of ALMA and shifts of 6–14 days/nights (length chosen by the Fellow) in the case of Paranal. After each shift there are compensation days of similar length.

The duties of the fellows at Paranal include supporting astronomers for service and visitor runs, carrying out the execution of the observations (choosing which observing block can be executed in the current weather conditions, operating the instrument, analysing the quality control of the observed data, ...) and providing advice to the visitors. In addition, they will become instrument fellow acquiring in-depth knowledge of a given instrument. They will participate in engineering activities as recommissioning of instruments, will/can develop improvements of instrument performance, operation or data reduction.

Fellows that choose to perform the duties at ALMA are similar to the Paranal ones. They will be the astronomer on duty observing at the array and they will be working on the data



Figure 1: Left: Sunset at the Paranal observatory. Right: View of the Paranal residencia

processing and software testing. The fellow will also assist in the ALMA proposal review process and could also develop new capabilities.



Figure 2: Left: ALMA array. Right: View of the ALMA residencia

During the research time, the fellow will be in the Vitacura campus in Santiago where they will engage in a great scientific and social environment, attending and organizing talks, lectures and workshops as well as topic-related coffees and other social events. Being in Santiago will also allow the fellow to make connections with the growing Chilean astronomical community.

Fellows can co-supervise ESO students or interns with other ESO staff. They can also request funds to the Visitor program to bring students or senior collaborators to Chile or participate in organizing committees of workshops. The fellow will also benefit of working in a true international environment working closely with people from different cultures and disciplines.

ESO personnel do not have privilege access to any telescope time, However, if the fellow decides to stay in a Chilean institution during the 4th year, they will be eligible to apply for time on all telescopes in Chile through the 10% Chilean observing time.

There are other benefits that makes this post-doc position very competitive:

- Access to an international health insurance



Figure 3: ESO and ALMA Headquarters in Vitacura, Santiago.

- A plane ticket to the home station for all the fellow's family members paid by ESO (starting on the 2nd year)
- Education grant for fellow's children
- Paid relocation and installation grant
- And of course being in an amazing country and continent while working in a successful and recognized position.

The deadline for submitting applications is every year on Oct 15th using ESO's Recruitment Portal <https://recruitment.eso.org>

For more information about the ESO Fellowship program, please visit eso.org/fellowship or the talk uploaded to zenodo.org that can be found [here](#).

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Figure 4: Posters with more information about the ESO Fellowship.