

ESO Studentship Programme

The European Southern Observatory has positions available for 12 research students. Six of these positions are at the ESO HQ in Garching, the other six at the Observatory, La Silla, Chile. Since students normally stay approximately 2 years, this means that each year a total of 6 students (3 at each location) may be accepted. These are available to students enrolled in a Ph.D. (or equivalent) programme in the member states and exceptionally at a university in other countries.

Potential candidates or their supervisors may obtain detailed information about the programme by requesting the updated brochure and application forms from the Personnel Administration and General Services at ESO HQ, Karl-Schwarzschild-Str. 2, D-85748 Garching bei München, Germany.

The closing date for applications is October 15.

ESO Fellowships

The European Southern Observatory (ESO) will award up to six post-doctoral fellowships tenable at the ESO Headquarters in Garching near Munich. The tenure of the Fellowships can begin between January and October 1995. Fellows have the opportunity to participate in the ongoing activities at ESO Headquarters.

Inquiries, application forms and other information may be requested from:

European Southern Observatory
Fellowship Programme
Karl-Schwarzschild-Str. 2
D-85748 Garching bei München
Germany

The deadline for applications is October 15, 1994.

Studentships at La Silla

Two studentships are offered at La Silla, one starting in January 1995, the other in April 1995.

Students in the ESO Research Student Programme work on an advanced research degree under the formal tutelage of their home university, but come to La Silla and work under the daily guidance of an ESO staff member. In addition to the opportunities offered by the infrastructure and guidance, ESO may also provide logistical and financial support if necessary.

Students are appointed initially for one year, and, if appropriate, reappointed for an extension of up to one year. The home institute of the student must guarantee that a position is available upon returning which enables the student to complete his/her degree.

Students at La Silla will normally be part of the team of astronomers in the Astronomy Support Department that provides introductions and observational support to Visiting Astronomers. Typically, one third of their official working time will be occupied by these duties.

The research interests of the members of the staff in the Astronomy Support Department at La Silla include low-mass star formation, protoplanetary nebulae, chemistry of molecular clouds, high-resolution spectroscopy of cool stars, supernovae and their remnants, the distance scale, compact groups of galaxies, and observational cosmology. Staff members and senior fellows act as co-supervisors for students of European universities who spend up to 2 years on La Silla working towards a doctoral dissertation. The staff of the Astronomy Support Department consists of about 20 astronomers including staff, post-doctoral fellows, and students. Most of the ESO scientists are from the member states of ESO (Belgium, Denmark, Germany, France, Italy, the Netherlands, Sweden and Switzerland), but several are from other countries.

The research facilities at La Silla consist of 12 telescopes, including the SEST 15-m submillimetre antenna, and the 3.5-m New Technology Telescope. There are ample computing facilities including a number of networked SUN workstations.

Applications for both studentships should be submitted to ESO **not later than October 15, 1994**. Applicants will be notified before December 1, 1994. The ESO Studentship Application Form must be used, and two letters of recommendation should be sent directly to ESO before the same deadline.

Potential candidates or their supervisors may obtain detailed information about the programme by requesting the ESO Student Brochure. Requests for the brochure and application forms and applications should be addressed to:

European Southern Observatory, Studentship Programme, Karl-Schwarzschild-Strasse 2, D-85748 Garching bei München, Germany

Fellowships at La Silla

A post-doctoral fellowship is offered on La Silla starting at the beginning of 1995. The position is open to young astronomers with an interest in observational astronomy. The ESO fellowships are granted for a period of one year, normally renewed for a second and exceptionally for a third year.

For the present fellowship, applicants with experience in infrared imaging are particularly encouraged to apply. However, all qualified applicants will be considered irrespective of their field of observational experience.

The successful applicant will be required to spend 50 % of his/her time doing support activities and 50 % of the time on research.

Applicants normally should have a doctorate awarded in recent years. Applications should be submitted to ESO **not later than September 15, 1994**. Applicants will be notified by November 1, 1994. The ESO Fellowship Application Form should be used and be accompanied by a list of publications. In addition, three letters of recommendation from persons familiar with the scientific work of the applicant should be sent directly to ESO. These letters should reach ESO **not later than September 15, 1994**.

The research interests of the members of the staff in the Astronomy Support Department at La Silla include low-mass star formation, protoplanetary nebulae, chemistry of molecular clouds, high resolution spectroscopy of cool stars, supernovae and their remnants, the distance scale, compact groups of galaxies, and observational cosmology. Staff members and senior fellows act as co-supervisors for students of European universities who spend up to 2 years on La Silla working towards a doctoral dissertation. The staff of the Astronomy Support Department consists of about 20 astronomers including staff, post-doctoral fellows, and students. Most of the ESO scientists are from the member states of ESO (Belgium, Denmark, Germany, France, Italy, the Netherlands, Sweden and Switzerland), but several are from other countries.

The research facilities at La Silla consist of 12 telescopes, including the SEST 15-m submillimetre antenna, and the 3.5-m New Technology Telescope. There are ample computing facilities including a number of networked SUN workstations.

Enquiries, requests for application forms and applications should be addressed to:

European Southern Observatory, Fellowship Programme, Karl-Schwarzschild-Strasse 2, D-85748 Garching bei München, Germany

Senior Visitor Programme at La Silla

The European Southern Observatory (ESO) invites experienced astronomers to spend periods ranging from a few months to one year at La Silla in Chile within the framework of the ESO Senior Visitor Programme. The research facilities at La Silla consist of 12 telescopes, including the SEST 15-m submillimetre antenna, and the 3.5-m New Technology Telescope. There are ample computing facilities with a number of networked SUN workstations which run, among other things, the MIDAS image-processing system.

The astronomy group at La Silla has 18 members divided into 6 staff astronomers, 6 post-doctoral fellows and 6 students. The research projects currently pursued by the astronomical staff include low-mass star formation (Herbig-Haro flows, young binaries, disk accretion), protoplanetary nebulae, supernovae and their remnants, chemistry of molecular clouds, high-resolution spectroscopy of cool stars, the distance scale, compact groups of galaxies, and observational cosmology.

The purpose of the Senior Visitor Programme is to provide stimulus to the ESO Astronomy Group in Chile. Thus, applicants are expected to have or to begin collaborations with one or more ESO astronomers during their visit. A series of lectures on the research field of the Senior Visitor is welcomed, although not mandatory. Except for the requirement to participate in the scientific life of the observatory staff, there are no constraints on the research activities of the Senior Visitor.

Most of the scientists in ESO come from the member states of ESO, but several are from other countries. The member states of ESO are: Belgium, Denmark, Germany, France, Italy, the Netherlands, Sweden and Switzerland. Applicants of all nationalities can apply. Senior Visiting Scientists will be paid an appropriate stipend. Applications may be submitted to ESO at any time. Applicants will be notified within two months. The ESO Senior Visitor Application Form should be used and be accompanied by a list of publications. Enquiries, requests for application forms, and applications should be addressed to:

European Southern Observatory
Senior Visitor Programme
Karl-Schwarzschild-Strasse 2
D-85748 Garching bei München
Germany

New ESO Preprints

March–June 1994

Scientific Preprints

986. P. Ballester: Hough Transform for Robust Regression and Automated Detection. *Astronomy and Astrophysics*.
987. M. Einasto et al.: The Structure of the Universe Traced by Rich Clusters of Galaxies. *M.N.R.A.S.*
988. L. Pasquini, Q. Liu and R. Pallavicini: Lithium Abundances of Nearby Solar-like Stars. *Astronomy and Astrophysics*.
989. Th. Müller, M.R. Rosa and S. Röser: Astrometry in the Galactic Center Region. *Astronomy and Astrophysics*.
990. J.J. Clariá et al.: An Abundance Calibration for DDO Photometry of Populations II G and K Giants. *M.N.R.A.S.*
991. N.N. Chugai: The Oxygen Mass in SN 1987A: Making Use of Fluctuations in (OI) 6300, 6364 Å Profile. *Astrophysical Journal (Letters)*.
N.N. Chugai: Supernovae with Dense Circumstellar Winds *Astrophysical Journal (Letters)*.
992. H. Kjeldsen and T.R. Bedding: Amplitudes of Stellar Oscillations: the Implications for Asteroseismology. *Astronomy and Astrophysics*.
993. A. Franceschini et al.: X-Ray versus Optically Selected Active Galactic Nuclei: A Comparative Study of the Luminosity Functions and Evolution Rates. *M.N.R.A.S.*
994. P. Petitjean, M. Rauch and R.F. Carswell: The $Z_{\text{abs}} \sim Z_{\text{em}} \sim 2$ QSO Absorption Line Systems: Evidence for Abundances in Excess of Solar. *Astronomy and Astrophysics*.
995. A.A. Zijlstra et al.: Radio and Infrared Emission from a (WC)-Type Planetary Nebula in the LMC. *Astronomy and Astrophysics*.
996. S.R. Pottasch and A.A. Zijlstra: VLA Measurements of a Sample of Planetary Nebulae. *Astronomy and Astrophysics*.
997. E. Giallongo and P. Petitjean: The Temperature of the Lyman Alpha Clouds and the UV Ionizing Background at High Redshifts. *The Astrophysical Journal (Letters)*.
998. T.R. Bedding, J.G. Robertson and R.G. Marson: An Optical Interferometer with Wavelength Dispersion. *Astronomy and Astrophysics*.
999. G. Marconi, F. Matteucci and M. Tosi: Element Abundances in Blue Compact Galaxies. *M.N.R.A.S.*
1000. C.M. Carollo and I.J. Danziger: Colours, Line-Strengths and Stellar Kinematics of NGC 2663 and NGC 5018. *M.N.R.A.S.*

ANNOUNCEMENT ESO Workshop on QSO Absorption Lines

ESO, Garching
21 – 24 November 1994

An ESO workshop on QSO absorption lines will be held from 21 to 24 November 1994, at the Headquarters of the European Southern Observatory, Garching bei München, Germany.

The workshop is intended to discuss the theory and observations of QSO absorption lines in relation to the following topics:

- Galactic halo and interstellar medium
- Low-redshift systems
- Intrinsic absorption lines and BAL systems
- Ly-alpha clouds
- Damped systems
- Metal systems
- Probing the large scale structure
- Probing the Universe at high redshifts

Organizing Committee:

J. Bergeron, G. Meylan, P. Petitjean, P. Shaver, J. Wampler, ESO

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1001. O. Hainaut et al.: Imaging of Very Distant Comets – Current and Future Limits. *Astronomy and Astrophysics*.
1002. L. Jorda, O. Hainaut and A. Smette: Photometric Study of Comets P/Faye 1991 XXI and Zanotta-Brewington 1992 III. *Planetary and Space Science*.
1003. C.M. Carollo and I.J. Danziger: Dynamics and Stellar Populations in Early-Type Galaxies. *M.N.R.A.S.*
1004. M. Della Valle: Spectroscopic Observations of the Mt. Stromlo MACHO Candidate. *Astronomy and Astrophysics (Letters)*.