

## **JOB VACANCY ANNOUNCEMENT**

### **- Project Research Fellow (Project Researcher on Annual Salary System) with Patricio Sanhueza at ALMA Project, National Astronomical Observatory of Japan (NAOJ) -**

1. Job Title: Project Researcher (Project Research Fellow), one position
2. Division: ALMA Project (Possible transfer to a different department in NAOJ after August 31, 2024)
3. Work Location: National Astronomical Observatory of Japan (NAOJ), Mitaka, Tokyo
4. Area of Expertise: Astronomy and/or related fields

#### 5. Job Description:

Applications are invited to apply for a Project Research Fellow (postdoctoral position, funded by Grants-in-Aid for Scientific Research) at the National Astronomical Observatory of Japan (NAOJ) to work with Patricio Sanhueza and Fumitaka Nakamura. The Project Research Fellow will be based at the NAOJ ALMA Project headquarters in Mitaka, Japan.

The successful candidate will be 100% dedicated to science, and will work on observations of dust, spectral lines, and magnetic fields in high-mass star-forming regions using existing ALMA data at relatively low ( $0.3''$ ;  $\sim 500$ - $1000$  au) and high ( $0.06''$ ;  $\sim 100$ - $200$  au) resolution. Applicants with experience running star-formation simulations or knowledge analyzing simulated data are also welcomed to apply.

Candidates with experience/interest in any of the following specific topics will have priority:

1. Dust continuum emission.
2. Magnetic fields.
3. Polarization from both dust and spectral lines.
4. Molecular outflows.
5. Filaments and large-scale inflows.
6. Hot cores, complex molecules (chemistry), and recombination lines.
7. Interferometry (ideally experience with ALMA data and CASA).
8. Analyzing data from simulations and comparison with observations

#### 6. Terms of Appointment:

The successful candidate is expected to start the job as early as reasonably possible after the job offer has been accepted. The term of employment will be two years and 8 months if the fellow starts the

position on August 1, 2023, including the probation period of six months. The end of the contract must be on March 31, 2026.

Note:

- (1) If the successful candidate had been employed by the National Institutes of Natural Sciences (NINS, which is an executive institute that manages NAOJ) within six months retroactively from the start date, the term will be set so that the total employment period does not exceed ten years.
- (2) If the successful candidate had been employed as an NAOJ Project Researcher (including Project Research Fellow) or a Researcher (Part-time Contract Employee), the term will be set so that the total accumulated period of employment does not exceed five years.
- (3) Annual performance review will be conducted.

#### 7. Qualifications:

- (1) The applicant must have a PhD degree or is expected to have it by the start date.
- (2) The applicant must be proficient in spoken and written English. Knowledge of Japanese is advantageous but is not required.
- (3) The applicant must be proficient in Python programming language and be comfortable working in a Linux environment.

#### 8. Labor Conditions:

##### (1) Work Type and Work Hours:

The Discretionary Labor System for Professional Work shall be applied. (Standard work hours: 38.75 hrs/week, from 8:30 to 17:15 with an hour intermission)

##### (2) Holidays:

Saturdays and Sundays, National Holidays, New Year holidays (December 29th - January 3rd), Paid days off (annual leave, summer holidays, etc.)

##### (3) Social Insurances:

MEXT Mutual Aid Association (health insurance), Employees' Pension Insurance, Employment Insurance, Industrial Accident Compensation Insurance

##### (4) Remuneration:

The project researcher will be employed under an annual salary system, and will receive a salary of 350,000 JPY per month. Commuting expenses (up to 55,000 JPY per month) will be provided. Retirement allowances are not provided.

##### (5) Others:

- Day-care center for children (from 57 days old). \*Availability depends on the situation. Childcare staff does not provide English support.
- Smoking is prohibited on the premises excluding designated outdoor smoking areas.

- Travel and relocation costs to NAOJ will be covered, subject to the travel regulations of NINS (details must be arranged with the administration office).
- Travel expenses (e.g., conferences, collaboration trips) and working supplies (e.g., computer, external hard drives) will be covered.

#### 9. Selection Process:

A candidate will be selected through screening of application documents and interview (face-to-face or online). The expense for the interview will not be covered by NAOJ.

#### 10. Required Application Documents: (\*To be prepared in English)

- (1) Cover letter (one page). Indicate here a possible starting date and the names of the recommenders
- (2) Curriculum Vitae
- (3) Publication list (separate refereed and non-refereed papers)
- (4) Research statement, not to exceed four pages. This should include both a summary of past research activities and a statement of research interests, where the latter is mostly focused on star formation research using ALMA data.
- (5) Two reference letters. Please ask your references to upload the letter directly using the URL indicated in 12. before the application deadline. Applicants are responsible for ensuring that the letter is submitted before the closing date for application.

#### 11. Closing Date for Application:

May 12, 2023, 12:00(noon) (Japan Standard Time).

#### 12. Submission:

Applicants are required to apply via the NAOJ Nextcloud on the web.

- (1) Please access the following URL for registration:

<https://forms.office.com/r/h6E0Hd3PUy>

- (2) After you submit registration form, you will receive an email showing the URLs for (a) uploading your application documents, and (b) for your reference letter.
- (3) Please ask your reference to upload the letter via the URL (2)(b).
- (4) Please upload the application documents (from 10. (1) through 10. (4) above) via the URL (2)(a). These files must be in PDF format (max 50MB each, 100MB in total, at most 10 files).

#### 13. Contacts:

If you have any question related to the job description, please contact;

Patricio Sanhueza, ALMA Project, NAOJ

E-mail: patricio.sanhueza\_AT\_nao.ac.jp (replace \_AT\_ with @)

Additional information on the science project can be found at:

<http://www2.nao.ac.jp/~patricio/index.html>

If you have any question related to the other items, please contact;

E-mail: job12-pjt-researcher2\_AT\_nao.ac.jp (replace \_AT\_ with @)

#### 14. Remarks

- Information submitted in your application documents will not be used for any purpose other than the selection process and for contacting you with necessary notices in connection with the selection. Once the selection process is complete, we will securely dispose of all application documents and personal information, except for those submitted by the successful candidate.
- Project researchers are eligible to apply for the Grants-in-Aid for Scientific Research (KAKENHI).
- Policy for Equal Employment Opportunity: Abiding by the Equal Employment Opportunity Act for Men and Women, NAOJ is committed to the realization of a society with gender equality. If two candidates are deemed equal in their performance evaluation, NAOJ will take positive action to employ women. If you have taken a leave(s) such as for maternity, childcare, and/or family care, please indicate it in your curriculum vitae. We will consider it when assessing your performance. For details, see <https://www2.nao.ac.jp/~open-info/gender-equality/en/>.

#### 15. Name of recruiter

Inter-University Research Institute Corporation, National Institutes of Natural Sciences (NINS),  
National Astronomical Observatory of Japan (NAOJ)