

JOB VACANCY ANNOUNCEMENT

- Professor at ALMA Project, National Astronomical Observatory of Japan (NAOJ)

The National Astronomical Observatory of Japan (NAOJ) announces a vacancy for a position to lead the development and manufacturing of radio receivers, with a focus on establishing device fabrication processes and ensuring stable and well-controlled cleanroom operations to enable cutting-edge development.

1. Job Title: Professor, one position
2. Division and Location: NAOJ ALMA Project, NAOJ, Mitaka, Tokyo 181-8588, Japan
(Scope of possible changes) Location designated by NINS / NAOJ
3. Area of Expertise: Applied physics, electrical/electronic engineering, or radio astronomy

4. Job Description:

The National Astronomical Observatory of Japan (NAOJ) has been playing a leading role at the forefront of global astronomical research. ALMA is the largest (sub)mm-wave on-ground telescope and has been producing ground-breaking science since it became operative in 2011. In order to keep its high scientific productivity, ALMA will be upgraded towards addressing the updated scientific goals identified in the ALMA Development Roadmap. The highest priority item in the Development Roadmap is the Wideband Sensitivity Upgrade, which aims to enable observations across expanded frequency ranges through significant upgrades to the receivers of ALMA.

We invite applications for a Professor position to lead the development and manufacturing of ALMA receivers, with a particular focus on establishing device fabrication processes for SIS mixers. This includes the development and maintenance of a controlled cleanroom environment to ensure the reliable production of high-quality superconducting devices. The individual is also expected to organize and maintain a team that supports such advanced manufacturing, contribute to human resource development, and oversee the operation of the SIS cleanroom facility to enable cutting-edge development and production. In addition, the successful candidate is responsible for the research and development of innovative superconducting device technologies, primarily for applications in astronomical instruments, with potential future applications in quantum computing also in mind.

To fulfill this role, the applicant should have advanced technical and research expertise in superconducting device development, as well as in operating cleanroom facilities. We are also seeking an individual who is eager to take a leading role in technical discussions concerning ALMA and future plans in astronomy, and who is committed to enhancing NAOJ's strength through the advancement of its development capabilities. Fostering early-career engineers and technicians, including PhD students, in order to equip them with the competence and skills necessary for next-generation instrumentation and related technologies, is also an important part of this role.

(Scope of possible changes) Research and Teaching Activities designated by NINS / NAOJ

5. Terms of Appointment:

The successful candidate is expected to start the job as early as reasonably possible after accepting the job offer. The term of employment will continue up to the end of the Japanese academic year, in which the post-holder reaches NAOJ's mandatory retirement age of 65. The hired candidate will undergo a six-month probationary period upon commencement of employment.

6. Qualification Requirements:

- (1) PhD degree or equivalent in the related field;
- (2) Demonstrated technical and research expertise in superconducting device development;
- (3) Proven knowledge and practical experience in cleanroom facility operations;
- (4) Ability to engage in technical discussions in English;
- (5) Experience as the lead or as a key member of a development team for an astronomical project will be highly evaluated.

7. Required Application Materials: (*To be prepared in English)

- (1) Cover letter;
- (2) Curriculum vitae;
- (3) Publications list (Separate refereed and non-refereed papers. SPIE can be included in refereed papers);
- (4) Summary of your past activities related to this position;
- (5) Your plans to fulfill the responsibilities and achieve the aspirations associated with this position;
- (6) Your address (e-mail and phone) for prompt contact and the email address of your current supervisor or line manager; and
- (7) Two or more reference letters. Please ask your references to upload their letters directly using the URL indicated in 9.1.(2) before the application deadline. Applicants are responsible for ensuring that the letters are submitted before the application deadline.

8. Closing Date for Application: 2026-01-08, 12:00 (noon) (Japan Standard Time)

9. Application Instructions:

9.1 How to Submit an Application:

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/ZxcF6CwYiy>
- (2) After you submit the registration form, you will receive an email showing the URLs for
 - (a) uploading your application documents, and
 - (b) for your reference letters.
- (3) Please ask your references to upload their letters via the URL shown in (2)(b).
- (4) Please upload the application documents (from 7. (1) through (6) above) via the URL (2)(a). These files must be in PDF format (max 50MB each, 100MB in total, at most 10 files).

9.2 Contacts:

- (1) If you have any question related to the job description, contact;
E-mail address: s.iguchi_AT_nao.ac.jp (replace _AT_ with @)

Satoru Iguchi, Director of NAOJ ALMA, NAOJ

Subject of e-mail: “Question on JD of Professor in NAOJ ALMA Project”

(2) If you have any question related to the other items, contact,

E-mail address: job01-professor_AT_nao.ac.jp (replace _AT_ with @)

Subject of e-mail: “Question on Application for Professor in NAOJ ALMA Project”

10. Notes for Applications:

- (1) Candidates selected in the final short list may be interviewed by the selection committee either via the internet or face-to-face. The expense for the interview will not be covered by NAOJ.
- (2) If the selection committee determines that there are no qualified candidates for this position, this announcement may be closed without any selections.

11. Working 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)
- (3) Paid leave: Annual paid leave, Summer closure, Bereavement leave, etc.
- (4) Social Insurance: MEXT Mutual Aid Association (health insurance), Employees' Pension Insurance, Employment Insurance, Industrial Accident Compensation Insurance
- (5) Remuneration:
 - Salary: Annual salary shall be determined based on professional knowledge, skills, required education, and job experiences as per the NINS regulations (NINS, or the National Institutes of Natural Sciences, is an upper-level organization that manages NAOJ). Payments will be made monthly in 12 equal installments.
 - Allowances: Dependent allowance, residential allowance, commutation allowance, and other allowances will be paid to employees who meet the conditions outlined in the NINS regulations. An amount equivalent to the year-end allowance and diligence allowance will be included in the annual salary.
 - Salary Increment: Once a year in accordance with the performance review
 - Retirement Allowance: Provided
 - Travel and relocation: Eligible employees will be provided with a relocation travel package to NAOJ, subject to the travel regulations of NINS (details must be arranged with the administration office).

12. Miscellaneous

- The NAOJ Advisory Committee for Research and Management will make the final decision for the appointment.
- This position is subject to the NINS Employee Regulations. The annual salary schedule indicated in Table (2) of the Research-Education Employee Base Annual Salary shall be applied to this position.
- Policy for Equal Employment Opportunity: Abiding by the Equal Employment Opportunity Act for Men and Women, NAOJ is committed to realizing a society with

gender equality. If two candidates are deemed equal in their performance evaluation, NAOJ will take positive action to employ women. For details, see <https://www2.nao.ac.jp/~open-info/genderequality/en/>

- If you have taken a leave(s) for maternity, childcare, and family care, please indicate it in your curriculum vitae. We will take it into account when assessing your performance.
- Smoking is prohibited on the premises excluding designated outdoor smoking areas.
- 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 those submitted by the successful candidate.

13. Recruiting Institution:

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