

## **JOB VACANCY ANNOUNCEMENT**

### **- Assistant Professor, National Astronomical Observatory of Japan (NAOJ) -**

NAOJ invites applications for an assistant professor position as follows:

1. Job Title: Assistant Professor, one position
2. Division and Location: JASMINE Project, Mitaka, Tokyo
3. Area of Expertise: Astronomy, and/or related fields
4. Job Description:

The National Astronomical Observatory of Japan (NAOJ) has the JASMINE Project aiming to take major roles in development and operations of the infrared space astrometry mission, Small-JASMINE, which is the third Medium-class space-science mission planned in the Japan Aerospace Exploration Agency (JAXA). It will carry the ability to image the stellar kinematics in the central region of the Milky Way Galaxy at a distance of 8 kpc by the infrared astrometric observations. Thereby it will enable studies of the formations of Galactic bulge, bar, disk and central black hole, and will identify the birth place of the solar system and its trajectory to the present place through the Galactic-Center-Archeology and Galactoseismology approaches. The Small-JASMINE will also carry out explorations of the potentially habitable exoplanets by the time-domain astronomical observations. The present target launch date is in 2028. After three years of observations, the mission will create and publish a catalog of about 100,000 stars containing their astrometric parameters such as annual parallaxes. To obtain high-precision astrometric parameters, it is crucial to perform post processing of the observed data to remove various systematic errors by utilizing the self-calibration techniques. The Small-JASMINE is presently in the concept study phase and the post-processing methods and techniques are being extensively studied.

We invite applications who have strong interest in astrometry and/or time domain astronomy which JASMINE will pursue, for an assistant professor position at the JASMINE project of NAOJ. A successful candidate of this position is expected

- (i) to play major roles in development of post-processing software of the Small-JASMINE,
- (ii) to contribute the verification of the mission concept by conducting the end-to-end (observation-to-data product) simulations.

The successful candidate is also expected to lead the entire scientific operation of the Small-JASMINE in near future as the mission development progresses in JAXA.

A successful candidate is required to have the following abilities and experience to carry out the above duties:

- (a) experience and knowledge of statistical analysis of scientific data and mathematical modeling of signals and systematic errors arising from various factors including the instruments
- (b) experience and knowledge to design and to develop object-oriented reusable and multi-platform compatible software
- (c) communication skills required to work as a team
- (d) flexibility to embrace new data science ideas

In addition, knowledge of the mission instruments and the spacecraft bus system is required. However, this knowledge can be acquired after joining the JASMINE project.

The responsibilities of this position require continuously demonstrating leadership and outstanding performance in research activities, and also fostering collaborations among NAOJ scientists and PhD students.

5. Terms of Appointment:

The successful candidate should be able to start as soon as reasonably possible after the job offer has been accepted. The term of contract is up to the end of the Japanese academic year in which the faculty reaches NAOJ's mandatory retirement age of 65. The probation period of six months is included.

A review for the continuation of employment will occur before the beginning of the sixth year. The review may result in the candidate being requested to transfer to another position within NAOJ.

6. Minimum Educational Requirement: Ph.D. or equivalent in astronomy or related fields

7. Required Application Materials: (\*To be prepared in English. Any other language will not be accepted.)

- (1) A cover letter,
- (2) A curriculum vitae,
- (3) Publication list (Separate refereed and non-refereed papers.),
- (4) A summary of your past research activities including international collaborations,
- (5) Your commitment and plan to fulfill the duties,
- (6) Your address (e-mail and phone) for prompt contact and the email address of your current supervisor or line manager,
- (7) Three or more reference letters. Reference letters should be written by faculty/staff with tenured positions. Reference letters from multiple countries are preferred. Please ask your references to upload their letters directly using the URL indicated in 9 before the application deadline. Applicants are responsible for ensuring that the letters are submitted before the application deadline.

8. Application Deadline: 2021-12-22, 12:00 (noon) (Japan Standard Time)

9. Submission:

Applicants are required to apply via the NAOJ Nextcloud on the web. Please access the application form at the following URL:

<https://forms.office.com/r/EEWEe9f2FH>

After you submit the initial form, you will receive an email showing the URLs for (a) uploading your application documents, and (b) for your reference letters.

Once you get the URL(a) for your application documents, please upload the files corresponding to the documents (1) through (6) stated in 7. These files must be in PDF format (max 50MB each, 100MB in total, at most 10 files).

Please ask your references to upload their letters via the URL(b) you receive for this purpose.

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

“Question on Assistant Professor of JASMINE”

E-mail: naoteru.gouda\_AT\_ao.ac.jp (replace \_AT\_ with @)

Professor Gouda, Naoteru,

*Director of JASMINE Project, NAOJ*

If you have any question related to the application process or other items, please contact with a subject;

“Question on Assistant Professor of JASMINE”

E-mail: apply-JASMINE-assisprof20211222\_AT\_ao.ac.jp (replace \_AT\_ with @)

#### 10. 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),

Annual paid leave (20days: to be prorated for the first year), Summer holidays (3 days)

##### (3) Social Insurances:

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

##### (4) Remuneration:

Salary: The amount of an annual salary shall be determined based on the school career and job experiences in accordance with the NINS regulations (NINS, or the National Institutes of Natural Sciences, is an executive institute that manages NAOJ). The payment will be made monthly in 12 equivalents.

Allowances: Dependent allowance, residential allowance, commutation allowance, and the other allowances will be paid when the requirements based on the NINS regulations are all filled. The equivalent of the term-end allowance and the diligence allowance shall be included in the annual salary.

Salary Increase: Once a year in accordance with the performance evaluation

Retirement Allowance: Shall be paid

#### 11. Remarks:

- 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.
- If the selection committee deems that there is no qualified candidate for this position, it is possible no one will be selected.
- NINS Employee Regulations shall be applied to this position.
- Smoking is prohibited on the premises excluding designated outdoor smoking areas.
- 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, child care, and/or family care, please indicate it in your curriculum vitae. We will consider it when assessing your performance.

For further information about NAOJ's efforts to achieve gender equal society, see

<https://www2.nao.ac.jp/~open-info/gender-equality/en/>

- 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.

12. Name of recruiter

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