JOB VACANCY ANNOUNCEMENT

Associate Professor (Senior Lecturer equivalent), National Astronomical Observatory of Japan

1. Job Title: Associate Professor (Senior Lecturer equivalent), one position

2. Division and Location: Center for Computational Astrophysics, Mitaka (Japan)

3. Area of Expertise: Astronomy and/or related fields

4. Job Description:

 The National Astronomical Observatory of Japan (NAOJ) has the Center for Computational Astrophysics (CfCA) that operates the open-use supercomputer system for computational astrophysics. We invite applications for the position of an Associate Professor (Senior Lecturer equivalent) in CfCA who leads and manages the operation of the CfCA computer system. The successful candidate is expected to carry out the following tasks.

Basic premises

 In addition to operating the facilities in CfCA, responding to users of the computers, and engaging in development work as needed, this person will also be responsible for running the project organization under the discretion of the project director. At the same time, this person must also be an active researcher in astronomy. This person will be requested to be a serious computer user and contribute to the construction of an open-use computer system that is best suited to advance research in computational astronomy. A detailed summary of the duties expected of this person is listed below.

A1. Operation of open-use computer system

 CfCA has been operating a system of open-use computers for numerical simulations used in astronomy and astrophysics. In addition to the main supercomputer (currently Cray XC50) leased from Hewlett-Packard Enterprise, CfCA has built the following equipment to aid the open-use computer operations: a series of computers dedicated for gravitational N-body problems (known as GRAPE) together with several GPU nodes; PC clusters for small to medium-scale computation; large-scale file

servers; a group of servers for processing computational output data; and networking instruments to encompass the overall computer system. The newly recruited personnel are expected to be primarily involved in the latter, i.e., the operation of equipment other than supercomputers. Here, operation means a variety of activities: hardware selection, procurement, assembly and installation, and actual operations for open-use; installation, maintenance, and updating various software; responding to queries and questions from open-use computer users. It is also important to create a facility environment in which to set up the entire computer devices, i.e. preparation of electrical and air conditioning equipment. This personnel must effectively work with existing staff members of CfCA on a series of things that occur on site in the computer room, and maximize academic output by providing convenience to open-use computer users.

A2. Involvement in application approval and user registration processes

Applications forms that the open-use computer applicants of CfCA's facilities submit are reviewed and finalized by responsible committees and personnel. This is followed by the user registration process that CfCA carries out. Application forms from applicants go through Drupal, a Content Management System that CfCA operates. Then the application forms will be sent to a review committee. Then, TAC (time allocation committee) makes a final decision of approval or disapproval after the review committee tasks is complete. The recruited personnel will be involved in all stages of this screening process and will provide consistent oversight from the solicitation of applications to the registration process for open-use computer users. This includes the maintenance and administration of the web forms on Drupal and the web server used for the series of purposes.

A3. The management support of the CfCA director

The CfCA has a number of staff members who are involved in the open-use of the computers as a whole, sharing different tasks. The personnel to be recruited will be required to assist the project director in keeping a constant eye on the work of these various personnel. To this end, the personnel to be recruited is requested to promote the sharing of information within the project and manage workload of the staff.

A4. Collaboration with other departments and agencies

NAOJ has several computing centers. As one of them, CfCA cannot be isolated from others. In particular, Astronomy Data Center (ADC) and CfCA have a lot in common in terms of the policy of computer system management and strategy of

equipment operation. Therefore, it is desirable for both the centers to cooperate with each other on a regular basis. In this regard, the newly recruited person is expected to play an important role in mediating a series of collaborative relationships between these two divisions.

Also, as a participant in the government-led HPCI (High-Performance Computing Infrastructure) program having the national K and the post-K supercomputers at its center since its planning stage in 2010, CfCA has engaged in the promotion of the HPC research field in Japan. Among the series of activity, the HPCI consortium is an incorporated association established in April 2012. CfCA is currently an associate member that is able to express views, obtain information, and observe overall trends in the planning. It is expected that the newly recruited person will be involved in the activities of the HPCI consortium and will provide constant support to ensure that CfCA remains proactively involved in the HPCI plan led by the government and the Ministry of Education, Culture, Sports, Science and Technology.

B. Research activity using numerical simulation

In general, those who are responsible for the operation of CfCA's open-use computers should be familiar with computer technology with a high IT skill, but they should also have the mind of an astronomical scientist. Only by having a strong motivation to be an active astronomical scientist, it is possible to contribute to the construction of a computer system that is easy to use by the open-use collaborators including her/himself. Then, CfCA's computer system can extract scholarly achievements with maximum efficiency. In this regard, it is strongly hoped that the newly recruited person has this kind of scientist's mind, and is an active researcher in the collective fields of numerical simulation astronomy.

5. Terms of Appointment :
   The successful candidate should be able to start as soon as 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.

6. Minimum Academic Requirements: 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) Cover letter,

(2) Curriculum vitae,

(3) Publication list (Separate refereed and non-refereed papers.),

(4) Summary of your past research activities,

(5) Outline of plans for this position,

(6) Your easily reachable contact information (e-mail and phone),

(7) Three or more reference letters. Please ask your references to upload the letters directly to the NAOJ job application system shown in 9 before the application deadline (all reference letters should be written by faculty/staff with tenured positions, and no more than one reference letter will be accepted from the same country).

8. Application Deadline: 2020-09-11, 17:00 (Japan Standard Time)

9. Submission:

Applicants are required to apply via the NAOJ job application system on the web: https://jobregister.nao.ac.jp/

Please fill out the form on the web and upload the documents specified on the application form. If it takes time to prepare the documents, applicants should be issued an applicant ID and reference IDs in advance. Reference letters should be uploaded by persons who have written the letter for you directly, following the instruction shown on the application form. Reference IDs and passwords are required to upload reference letters, so please inform references of the issued reference IDs and passwords. The application documents should be converted to PDF (max 50MB each, 100MB in total, at most 10 files).

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

E-mail: kokubo.eiichiro_AT_nao.ac.jp (replace _AT_ with @),

Eiichiro Kokubo, Director of Center for Computational Astrophysics, NAOJ
Subject of e-mail: "Question on JD of Associate Professor in CfCA, NAOJ"

If you have any question related to the job application system or other items, contact,
E-mail address: JobRegister-contact-10_AT_nao.ac.jp (replace _AT_ with @)

Subject of e-mail: "Question on Associate Professor in CfCA, NAOJ"

10. Remarks

- The NAOJ Advisory Committee for Research and Management will make the final decision for the appointment.

- Candidates selected in the final short list may be interviewed by the selection committee either via internet or face-to-face. The expense for the interview will not be covered by NAOJ.

- NINS Employee Regulations (NINS, or the National Institutes of Natural Sciences, is an executive institute that manages NAOJ) shall be applied to this position.

- The successful candidate will be employed under the scheme of the annual salary system of NAOJ and will be paid monthly in 12 equal payments. Retirement Allowance shall be paid.

- 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. For details, see https://openinfo.nao.ac.jp/danjokyodo/

- 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.