Opening Recruitment of Specially Appointed Research Fellow of the International Research Collaboration Center (IRCC)

The International Research Collaboration Center (IRCC) at the National Institutes of Natural Sciences (NINS) in Japan has concluded the MoU (Memorandum of Understanding) with Princeton University and three research institutes of Max Planck Society (*) to promote international collaborative research in plasma physics with applications to astrophysics and fusion sciences. Based on this MoU, the research unit of astro-fusion plasma physics (IRCC-AFP) has been established in IRCC (https://www.nins.jp/en/site/ircc/3764.html).

Two overseas research branches will be started in the United States of America and Germany. IRCC will recruit a postdoctoral or more senior researcher to conduct the research activities in Princeton branch promoting international research collaborations between NINS and Princeton University. The guidelines follow below.

(*) Max Planck Institute for Plasma Physics, Max Planck Institute for Astrophysics, Max Planck Institute for Solar System Research

1. Title and number of positions to be filled
Title: Specially Appointed Research Employee (IRCC-AFP fellow)
Title in Princeton University: Postdoctoral Research Fellow: (to be confirmed)
Number: one person

2. Research fields

IRCC-AFP is promoting new research activities of the Integral Plasma Physics, which merges fusion, astronomical, and heliospheric plasma physics, for the purpose of strengthening international collaboration activities with the emphasis of the interdisciplinary scope of research. For this scope of research, IRCC-AFP invites applications for the IRCC-AFP fellow for theoretical and computational research in plasma physics in one of the research fields shown below:
1) Physics of plasma turbulence and transport;
2) Physics of energetic particles and particle acceleration in plasmas.

Potential integrated research subjects are exemplified as follows:
extensions of theoretical models and/or numerical methods, statistical and/or direct-numerical-simulation-based modeling, their applications to fusion and/or astronomical plasma physics, and quantitative comparative studies.
3. Requirements for applicants
(1) A Ph.D. degree (expected to have before the start date)
(2) Strong interests in studying plasma physics topics listed in the previous section.

4. Research duties
IRCC-AFP fellow will conduct international collaboration research under the supervision of researchers in IRCC-AFP (Appendix shows a list of IRCC-AFP members), NAOJ(*) or NIFS(**), and the Department of Astrophysical Sciences at Princeton University. An important role of IRCC-AFP fellow is activating the international collaboration between researchers in NINS and Princeton.
   (*) National Astronomical Observatory of Japan
   (**) National Institute for Fusion Science

It is possible to expand the international collaboration to include the research institutes of Max Planck society based on the MoU between NINS and Max Planck Society.

5. Term of appointment
The successful candidate should be able to start on or after April 1, 2021. The job start date can be negotiated. The term of the contract will be renewed annually (for up to a total of three years in NINS and Princeton University).

6. Salary
(1) The specially appointed research employee will be employed under an annual salary system and will receive a salary based upon the NINS standard taking into account the salary of a postdoctoral researcher in Princeton University as reference. The salary will be paid monthly by installments.
(2) The specially appointed research employee will be eligible for enrollment in health insurance.
(3) Travel and relocation costs to IRCC-AFP will be covered, subject to the travel regulations of NINS.

7. Place of work
The primary work place for the IRCC-AFP fellow will be the Department of Astrophysical Sciences at Princeton University. The fellow will also make extended visits to NAOJ or NIFS in Japan following to the plan of promoting the international collaboration.
8. Application deadline
   February 26, 17:00 (JST), 2021.
   Review will continue until an appropriate candidate is selected.

9. Reviewing and selection system
   Selection will be made by the selection committee of IRCC-AFP. The first screening
   will be done based upon the examination of all submitted documents. After the first
   screening, we will have an interview as the second screening via the internet or
   face-to-face. The expense for the interview will not be covered by IRCC.

10. Documents to be submitted
    Documents must be written in English for the international review.
    (1) CV
    (2) Publication list
    (3) A brief summary of research history and a statement of research plans related
    to the areas of IRCC-AFP collaboration research. These documents should be 1 to 3
    pages in length.
    (4) Name and e-mail address, from whom recommendation letters can be requested. At
    least one person is necessary. Two or more persons are favorable.
    (5) Any other documents useful for the review.

Send your application documents by e-mail to;
E-mail: nins-kokusai@nins.jp
Subject of e-mail: “Application for specially appointed research employee for
IRCC-AFP”.

11. Contact Information for the International Research Collaboration Center
    (1) Regarding application documents
        Liaison and Planning Division, Administrative Bureau, National Institutes of Natural
        Sciences
        E-mail: nins-kokusai@nins.jp
        National Institutes of Natural Sciences, 2F Hulic Kamiyacho Building, 4-3-13
        Toranomon, Minato-ku, Tokyo 105-0001, Japan

    (2) Regarding research
Prof. Anatoly Spitkovsky  
E-mail: anatoly@astro.princeton.edu  
Department of Astrophysical Sciences, Princeton University

Prof. Yasushi Todo  
E-mail: todo@nifs.ac.jp  
National Institute for Fusion Science

12. Miscellaneous  
IRCC will not use application documents for any other purpose but this selection.  
Application documents will be disposed after the selection.
APPENDIX

Members of IRCC-AFP in Japan

Prof. Shoichi Okamura (National Institutes of Natural Sciences)
Prof. Kohji Tomisaka (National Astronomical Observatory of Japan)
Prof. Yasushi Todo (National Institute for Fusion Science)
Prof. Ryoji Matsumoto (Chiba University)
Prof. Yasushi Ono (University of Tokyo)
Prof. Tomo-hiko Watanabe (Nagoya University)
Prof. Kengo Tomida (Tohoku University)