

**Job Information: Specially Appointed Assistant Professor**

**Employer: Yokohama National University (YNU)**

**Closing date: May 17, 2021**

1. Job Title: Specially Appointed Assistant Professor

2. Affiliation / charge: Quantum Information Research Center, Institute of Advanced Sciences, Yokohama National University (YNU)

3. The number of positions: 2

4. Starting date: July 1, 2021 or later (negotiable)

5. Terms of employment:

Until March 31, 2022. It may be renewed every year depending on work performance. The maximum limit is November 30, 2025.

Be notified at least 30 days before the end of the term regarding whether/not the employment contract has been renewed. 6-month trial period is required.

6. Compensation:

Annual salary system according to the university regulation of Yokohama National University. Due to the application of professional discretionary work system, it is considered to have worked 38 hours and 45 minutes per week.

7. Research field / specialty area:

Research field: Comprehensive science and engineering (Nano/micro science, applied physics), Mathematical science (physics)

Specialty area: Quantum information physics (experiment). Optical and quantum technology areas related to quantum information such as quantum communication, quantum computation, and quantum measurement.

8. Duties / Research description

Recruitment center:

Quantum Information Research Center, Institute of Advanced Sciences

Hideo Kosaka - Professor / Director of Quantum Information Research Center

Research description:

Cabinet Office Moonshot R & D System / JST Moonshot R & D Project (Goal 6) "By 2050, realize an error-tolerant general-purpose quantum computer that will dramatically develop economy, industry, and security" (<https://www.jst.go.jp/moonshot/program/goal6/index.html>)  
In under the project manager Hideo Kosaka, engaged in "Development of quantum interfaces for building quantum computational networks". We will develop a quantum interface in which a quantum memory is combined with an optomechanical crystal, in order to connect the superconducting qubit and the communication photon, towards realization of a large-scale superconducting quantum computer network by 2050.

Other duties:

Management and operation of the Quantum Information Research Center and related projects

#### 9. Selection Method

After the first selection by document screening, the second selection (if necessary) will be conducted by presentation and interview.

Web interviews are also available upon request.

If there is no suitable candidate, the final candidate may not be selected (transportation expenses, accommodation expenses, etc. for the interview will be applicant's burden).

Selection will be conducted at any time, and recruitment will end as soon as candidates are decided.

#### 10. Qualifications / requirements

1. Those who have a doctoral degree or who are expected to obtain it before employment
2. Those who are passionate about research and education
3. Those who are active in international joint research
4. Desirerd to be familiar with quantum information, but those who have sufficient experience in experimental research on nanotechnology, optical properties, quantum optics, quantum electronics, or magnetic resonance.
5. Proficiency in English for oral presentations, treatise writing, and international joint research.
6. Those who have the ability to carry out research on their own and who can build relationships of trust with researchers inside and outside the laboratory and carry out joint research.

#### 11. Documents to be submitted

2 copies each, all paper is A4.

If you apply by E-mail, please attach it as one PDF file.

- (1) Resume (attach a photo and specify your email address)
- (2) List of research achievements (distinguish between peer-reviewed treatises, international conference treatises, commentary / books, awards, etc. Enter values for treatises with an impact factor)
- (3) Reprint or copy of the original treatise (up to 5 major treatises)
- (4) Acquisition status of various competitive research funds (if any) (distinguish between representative or sharing)
- (5) Outline of research progress so far and prospects for research after taking office (1 to 2 sheets of A4 paper)
- (6) Other notable matters (optional)
- (7) Two persons who can ask for reference opinions: names, affiliations, relationships with individuals, contact information (telephone number, E-mail address)

12. Application closing date

May 17, 2021 (Must arrive)

\* Deadline will be closed as soon as candidates for employment are decided, since selection will be conducted at any time.

13. Mail to

Hideo Kosaka, Professor/Director, Quantum Information Research Center, Institute of Advanced Sciences Yokohama National University  
79-5 Tokiwadai, Hodogaya-ku, Yokohama 240-8501, Japan

14. Employer (recruiter)

President of Yokohama National University

15. Contact information

Hideo Kosaka, Professor/Director, Quantum Information Research Center, Institute of Advanced Sciences Yokohama National University  
79-5 Tokiwadai, Hodogaya-ku, Yokohama 240-8501, Japan  
Phone / Fax: 045-339-4196  
Email address: kosaka-hideo-yp4196ynu.ac.jp  
<please replace 4196 with @ in the email address.>  
Laboratory HP: <http://kosaka-lab.ynu.ac.jp>

Quantum Information Research Center (QIC) HP: <https://qic.ynu.ac.jp>

Institute for Advanced Sciences (IAS) HP: <https://ias.ynu.ac.jp>

\*All documents provided will only be used for application purposes. And they will be disposed of safely based on the rules of the university after the selection is completed.

\*Submitted documents will not be returned.

\*Our university welcomes the active application of women and those who have experience in education and research overseas, based on the spirit of the Yokohama National University Declaration of Gender Equality and from the perspective of aiming for diversity of human resources.