

Postdoctoral Position based on JST ASPIRE “Advancing Machine Learning using Quantum Features (AMALUQS)” (Japan-side PI: Kosuke Mitarai; Partner PI: Vedran Dunjko), Work Package 1.B “Quantum-enhanced Feature Design and Algorithm Development based on Topological Data Analysis and Quantum Computational Complexity Theory” (Co-PI: Ryu Hayakawa) (Deadline: NLT 9:00 am JST, on October 31st, 2026)

July 28th, 2026

1. Number of Openings: One (1) Program-specific Researcher (Quantum Information Group).

The title of "Research Assistant Professor (Senior Researcher)" may be granted depending on the candidate's qualifications.

2. Qualification: The candidate must hold a doctoral degree, or be certain to obtain one, by the time of appointment.

3. Expected Start Date: As soon as possible (negotiable).

4. Job Location: Yukawa Institute for Theoretical Physics, Kyoto University
(Kitashirakawa Oiwake-cho, Sakyo-ku, Kyoto, Japan).

Scope of change: In cases where the university permits or mandates telework, the location shall be the employee's home or equivalent.

5. Job Description:

This position is funded by JST ASPIRE “Advancing Machine Learning using Quantum Features (AMALUQS)” (Japan-side PI: Kosuke Mitarai; Partner PI: Vedran Dunjko). The successful candidate is expected to work with Ryu Hayakawa on quantum-enhanced feature design and algorithm development based on topological data analysis and quantum computational complexity theory. The position includes participation in international collaborative research activities, including stays in the Netherlands.

6. Contract Term: The successful candidate is appointed to renewable one-year terms up to March 31, 2030. Contract renewal will be determined taking into consideration factors such as workload, work performance, attitude, ability, progress of work, administrative circumstances, and the status of the receipt of external funding for employment at the time of the expiration of the contract period.

7. Probationary Period: Six (6) months.
8. Social Insurance and Benefits: A small amount of research funding is provided.
 - (1) MEXT Mutual Aid Association
 - (2) Employee's pension insurance
 - (3) Employment insurance
 - (4) Workers' accident compensation insurance
9. Working Conditions: Discretionary labor system for specialized work (equivalent to 7 hours 45 minutes per day, 38 hours 45 minutes per week). Alternatively, it is possible not to opt for the discretionary system; in that case, the working hours are 8:30–17:15, five days a week (Monday–Friday), with a lunch break 12:00–13:00, and overtime may be assigned. Days off: Saturdays, Sundays, national holidays, year-end/New Year holidays, Founding Day of Kyoto University.
10. Salary: Determined in accordance with Kyoto University's regulations, based on qualifications and experience (annual salary system).
11. Allowances: None.
12. Application Deadline: All application materials must arrive by 9:00 a.m. JST on Saturday, October 31, 2026.
13. Selection Process: Selection will be made based on the submitted documents. Candidates may be contacted for an interview if necessary.
14. Application Documents: Please submit documents (1)–(4) below by e-mail to ryu.hayakawa@yukawa.kyoto-u.ac.jp. Please write "ASPIRE-PD-apply" in the subject line of your e-mail. A PDF file is preferred.
 - (1) Curriculum Vitae
 - (2) List of publications (in the case of co-authored papers, please indicate the applicant's contribution; mark up to three main papers)
 - (3) A summary of past research and a research plan after appointment
 - (4) Name and contact information of at least one person who can provide

a reference

If you do not receive an acknowledgment of receipt within three days of submission, please contact the address below. Application documents will not be returned and will be used solely for the purpose of this selection.

15. Contact:

Ryu Hayakawa

E-mail: ryu.hayakawa{AT}yukawa.kyoto-u.ac.jp

16. Additional Information:

- (1) Kyoto University promotes gender equality. Applications from female researchers are strongly encouraged.
- (2) Application documents will be used only for the purpose of this selection. They will not be disclosed, transferred, or lent to third parties without legitimate reason, and will not be returned.
- (3) Smoking is prohibited indoors on all campuses of Kyoto University, and outdoors except in designated smoking areas, in order to prevent passive smoking.
- (4) Applications and inquiries from overseas are also welcome. Inquiries in English are accepted.