

Application instruction for LIMMS internship FY 2026

On the project " Theoretical study on electron quantum transport in the ultrastrong light-matter coupling regime " at KUROYAMA laboratory, LIMMS/CNRS-IIS, The University of Tokyo

1. Internship description

Location: LIMMS/CNRS-IIS (IRL 2820), Tokyo, Japan

Internship title: Theoretical study on electron quantum transport in the ultrastrong

light-matter coupling regime

Internship duration: 1 to 6 months

Accommodation support: 70 000 yens / month for maximum 6 months (420 000 yens

max. per person)

Expenses: Airplane tickets and incidental expenses are **NOT** covered by LIMMS.

Contract: Up to 6 months. An internship contract between IIS-UTokyo and the French school will be finalized, which will define the rules and obligations (both overseas travel accident insurance and liability insurance) during the stay at LIMMS/CNRS, IIS UTokyo.

Starting & Ending dates: The internship should start on the 1st of March 2026 or beyond and finish before the 31st of March 2027.

Visa: Students who will participate in the program for more than 90 days must have a visa. An administrative procedure takes about 3 months.

Job Duties:

- Conduct theoretical research on quantum transport of electrons in nanostructures coupled to optical resonators in the ultrastrong coupling regime
- Perform quantum calculations using Python, and use CST and COMSOL software to carry out finite element simulations of photonic fields in optical resonators

Skills and Experiences: Python, CST, COMSOL

2. Please send the following items to LIMMS direction

limmsadm@iis.u-tokyo.ac.jp>

- 1. CV
- 2. Motivation letter
- Candidates are kindly advised to send LIMMS direction the requested documents with an e-mail <u>subject "internship title" FY2026 followed by the candidate's full name</u>. Sending documents with a different e-mail subject might be at risk of being overlooked.

3. Submission Deadline (Closing date) for applications is

30 November 2025

- Please note that due to our administrative procedure, we cannot accept your applications AFTER the deadline.
- Due to a large number of applications, it is not possible to reply to you if you are not shortlisted. If you have not heard from us within one month of the closing date, please assume that your application has not been successful on this occasion.

4. Notification of results

After approval by the screening committee in LIMMS, notification of the acceptance will be sent both to the intern and the host professor of LIMMS.