

# YUTO MOTOHASHI

yuto.motohas@gmail.com

## EDUCATION

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**The University of Tokyo, Department of Applied Physics, Faculty of Engineering** Tokyo, Japan  
*B.S. in Applied Physics* Apr. 2019 - Mar. 2024

## RESEARCH EXPERIENCE

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**Cornell University, Electrical and Computer Engineering Department** New York, USA  
*Research Internship, under Prof. Karan Mehta* Jul. 2023 - Sep. 2023

- Design and characterization of photonic crystal UV high-Q resonator

**ETH Zurich, Institute for Quantum Electronics** Zurich, Switzerland  
*Research Project, under Prof. Jonathan Home* Sep. 2022 - Jun. 2023

- Stable Transport of Ion for Multi-Zone Operation by Stray Field Characterization
- Design and characterization of magnetic disk

**The University of Tokyo, Photon Science Center** Tokyo, Japan  
*Senior Thesis. under Prof. Kosuke Yoshioka* Apr. 2022 - Mar. 2024

- Characterization of the laser for the Doppler cooling of Positronium
- Optimization of Ionized Positronium Detection through Simulated Electric Field Modification and Structural Enhancement

## WORK EXPERIENCE

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**Yanekara, Inc., a start-up electric machine company** Tokyo, Japan  
*Internship* Aug. 2021 - Mar. 2022

- embedded software development on electric vehicle chargers

## SCHOLARSHIPS AND AWARDS

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**Funai Overseas Scholarship** Sep. 2024 - Aug. 2026  
· Full cover of tuition fee, medical insurance, and a stipend of \$3,000 monthly for two years

**GEfIL abroad program scholarship** Jul. 2023 - Sep. 2023  
· Scholarship for research internship at Cornell

**Short Study Abroad Scholarships** Sep. 2023 - Jun. 2023  
· Scholarship for exchange students, from The University of Tokyo

## PUBLICATION

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K. Shu, N. Miyamoto, **Y. Motohashi**, R. Uozumi, Y. Tajima, K. Yoshioka, "Development of an optimal laser for chirp cooling of positronium based on chirped pulse-train generator" submitted for publication.  
<https://arxiv.org/abs/2308.00877>

## SKILLS

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Python, C/C++, Rust, MSoffice, Autodesk Inventor, COMSOL Multiphysics, Lumerica, CST studio suite