## Eri KURODA

Department of Information Sciences in Science
Ochanomizu University, 2-1-1 Otsuka, Bunkyo-ku, Tokyo 112-8610

kuroda.eri@is.ocha.ac.jp

https://eri-kuroda.com/en

https://researchmap.jp/erikuroda?lang=en

https://orcid.org/0000-0001-6248-5056

¶ https://scholar.google.co.jp/citations?user=ym-sVBkAAAAJ&hl

# **Education & Research Training**

Oct. 2023 - Mar. 2024

#### **■** Guest Researcher

Ubiquitous Media Technology Lab, Saarland University Saarbücken, Germany (6 months)

Oct. 2022 - Dec. 2022

#### Internship Student

German Research Center for Artificial Intelligence (DFKI) Saarbücken, Germany (3 months)

Apr. 2022 – Present

## ■ JSPS Research Fellow (DC1)

Japan Society for the Promotion of Science, Tokyo, Japan

## Ph.D. student (Information Science)

Ochanomizu University, Tokyo, Japan Supervisor: *Prof. Ichiro Kobayashi* 

Apr. 2020 - Mar. 2022

#### M.Sc.

Ochanomizu University, Tokyo, Japan

Major GPA: 4.0/4.0

Supervisor: Prof. Ichiro Kobayashi

Apr. 2016 - Mar. 2020

#### B.Sc.

Ochanomizu University, Tokyo, Japan

Major GPA: 3.35/4.0

Supervisor: Prof. Ichiro Kobayashi

## **Talks & Publications**

#### **International Conferences**

- **Kuroda**, E., & Kobayashi, I. (2023a, October). Predictive inference model of the physical environment that emulates predictive coding. In *26th international conference on discovery science* (*ds2023*). Retrieved from <code>%</code> https://ds2023.inesctec.pt/
- **Kuroda**, E., & Kobayashi, I. (2023b, August). Extraction of motion change points based on the physical characteristics of objects. In 2023 ieee the 4th international conference on pattern recognition and machine learning (prml2023). Retrieved from § http://www.prml.org/index.html
- **Kuroda**, E., Nishimoto, S., Nishida, S., & Kobayashi, I. (2021a, December). A deep generative model imitating predictive coding in the human brain. In *The 22nd international symposium on advances intelligent systems*. Retrieved from

#### **Domestic Conferences**

- Kuroda, E., & Kobayashi, I. (2023c, June). Predictive inference model of the physical environment that mimics predictive coding. The 37th Annual Conference of the Japanese Society for Artificial Intelligence. Retrieved from https://www.ai-gakkai.or.jp/jsai2023/en
- **Kuroda**, E., & Kobayashi, I. (2023d, March). A study on the construction of an inflection point prediction model imitating predictive coding in the human brain under physical environments. The 85th National Convention of IPSJ. Retrieved from **6** https://www.ipsj.or.jp/event/taikai/85/
- **Kuroda**, E., & Kobayashi, I. (2022a, June). A study on extraction of motion inflection points focusing on objects in an image. The 36th Annual Conference of the Japanese Society for Artificial Intelligence. 6 doi:10.11517/pjsai.JSAI2022.0\_2M10S19a02
- **Kuroda**, E., & Kobayashi, I. (2022b, March). A study on extracting the inflection point in the physical environment. The 84th National Convention of IPSJ. Retrieved from <a href="https://www.ipsj.or.jp/event/taikai/84/">https://www.ipsj.or.jp/event/taikai/84/</a>
- Kuroda, E., Nishimoto, S., Nishida, S., & Kobayashi, I. (2021b, March). A study on a deep generative model imitating predictive coding. The 83rd National Convention of IPSJ. Retrieved from <a href="http://id.nii.ac.jp/1001/00205169/">http://id.nii.ac.jp/1001/00205169/</a>
- **Kuroda**, **E.**, Nishimoto, S., Nishida, S., & Kobayashi, I. (2020, November). A deep generative model imitating predictive coding. The 23rd Information-Based Induction Sciences Workshop. Retrieved from **ℰ**https://ibisml.org/ibis2020/
- Kuroda, E., & Kobayashi, I. (2020b, March). A study on predicting the real world using deep generative models. The 82nd National Convention of IPSJ. Retrieved from <a href="http://id.nii.ac.jp/1001/00214918/">http://id.nii.ac.jp/1001/00214918/</a>
- Yuroda, E., & Kobayashi, I. (2020c, February). A study on building a deep generative model for prediction in the human brain. Grant-in-Aid for Scientific Research on Innovative Areas "Chronogenesis: How the Mind Generates Time". Retrieved from 6 https://www.chronogenesis.org/

#### **MISC**

- **Kuroda**, **E.** (2023a, May). Students forum (117) interview with associate prof. yuki igarashi "real opinions and communications". **6** doi:10.11517/jjsai.38.3\_429
- Kuroda, E. (2023b, February). Project on student editorial committee: Report on the 40th annual conference of the robotics society of japan (probabilistic robotics and data engineering robotics ~recognition, behavioral learning, and symbolic emergence ~(4/4)). Odoi:10.7210/jrsj.41.149

- **Kuroda**, **E.**, Ohkuma, T., Takano, M., Morita, C., Sakurai, Y., & Kiyota, Y. (2022, September). The world students see through research. **6** doi:10.11517/jjsai.37.5\_640
- **Kuroda**, E., Kashiwakura, S., & Matsui, A. (2022, July). Student forum (112) interview with prof. akiko aizawa "limb your own mountain, even if its small at first". Odo:10.11517/jjsai.37.4\_533

- **Kuroda**, E., Sakurai, Y., Takano, M., Sakuma, H., & Kiyota, Y. (2022, May). Ai system papers -challenges and possibilities for collaboration among different communities-. & doi:10.11517/jjsai.37.3\_323
- **Kuroda**, E., Yamakawa, H., Toriumi, F., Sakuma, H., & Kiyota, Y. (2022, May). Concept papers -to facilitate dissemination of high-impact papers-. Ø doi:10.11517/jjsai.37.3\_329
- Onishi, M., **Kuroda**, E., & Sakuma, H. (2022, March). Student forum (110) interview with prof. emi tamaki the future of body sharing technology based on deep sensation.

  Odoi:10.11517/jjsai.37.2\_237

## **Invited Talks**

May. 2023 | Plenary Talk

National Institute of Advanced Industrial Science and Technology, Artificial Intelligence Research Center (AIRC).

Jan. 2023 Education Program for Female Leaders: Training Course Ochanomizu University.

Nov. 2022 Research Introduction

DFKI Cognitive Assistants Dr.-Ing. Jan Alexandersson team.

Research Introduction

DFKI Cognitive Assistants Dr.-Ing. Boris Brandherm team.

### **Grants**

Oct. 2023 - Mar. 2024

Overseas Challenge Program for Young Researchers (JPY1,400,000) Japan Society for the Promotion of Science.

"Predictive sentences based on knowledge and experience of physical laws" (202380089)

Host researcher: Prof. Dr. Antonio Krüger

Host institute: Ubiquitous Media Technology Lab, Saarland University

Apr. 2022 – Mar. 2025

Grant-in-Aid for JSPS Research Fellows (DC1) (JPY 2,500,000)

Japan Society for the Promotion of Science.

"Real-world language explanations based on human predictive functions that capture the physical environment" (JP22J21786)

Supervisor: Prof. Dr. Ichiro Kobayashi, Ochanomizu University

Mar. 2021 Research Grant (JPY 500,000)

Leave a Nest Co. and Appliances Company, Panasonic Co.

Apr. 2020 – Mar. 2022 Scholarship (JPY 500,000)

Ochanomizu University and Inc. KSP-SP

JASSO Scholarship for Category 1 (JPY 2,112,000)

Japan Student Services Organization

Nov. 2019 Research Grant (JPY 200,000)

Ochanomizu University AI-Data Science Center

## **Awards**

Apr. 2022 Repayment Exemption of JASSO Scholarship (Category 1)
Japan Student Services Organization

Mar. 2022 Student Encouragement Award of IPSJ National Convention
The 84th National Convention of IPSJ

Feb. 2022 **Best Session Award**The 22nd International Symposium on Advanced Intelligent Systems

Dec. 2020 FY2020 Student Award
Ochanomizu University

Mar. 2020 **Best Paper Award of IPSJ National Convention**The 82nd National Convention of IPSJ

■ Student Encouragement Award of IPSJ National Convention
The 82nd National Convention of IPSJ

## **Experiences**

Nov. 2022 – Present Industry Collaboration Committee Member
Japan Society for the Promotion of Science

Apr. 2022 – Present JSPS Research Fellow (DC1)
Japan Society for the Promotion of Science

Jun. 2021 – Present Student Editor
The Japanese Society for Artificial Intelligence

Apr. 2021 – Mar. 2022 FY2021 IPSJ Journal Monitor
The Information Processing Society of Japan

**▼** Teaching Assistant (Exercises in Information Processing)
Ochanomizu University

# **Experiences (continued)**

Apr. 2020 – Mar. 2022

Teaching Assistant (University Library)

Ochanomizu University

Aug. 2017 - Sep. 2017

■ Short-term Study Abroad

The University of Manchester

Feb. 2017 – Mar. 2020

Private Teacher

Ochanomizu University

Feb. 2017 – Mar. 2018

**■** Programming Instructor

Pro-Tech Club

# **Skills**

Languages

Japanese (Native), English (TOEIC810)

Programming

Python, C, R, Java, HTML/CSS

Other Skills

Microsoft Office Specialist (certified as Expert)