Yuto Watanabe

Born: 16 October 1999

Birthplace: Toyota city, Japan

Status: Master's student at Kyoto University

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Personal Profile

Yuto Watanabe received the Bachelor's degree in engineering from Kyoto University, Kyoto, Japan, in 2022. He is currently pursuing the Master's degree with the Graduate School of Informatics, Kyoto University, Kyoto, Japan. His research interests include distributed control and optimization of multi-agent systems. I was awarded the Funai Oversea Scholarship and JSPS Research Fellowship for Young Scientist (Tokubetsu Kenkyuin) DC1.

Education

Apr. 2022 – Mar. 2024	Kyoto University Master's Student Department of Systems Science, Graduate School of Informatics	♥ Kyoto, Japan
Apr. 2018 – Mar. 2022	Kyoto University B.E. in Mechanical Engineering Thesis: Distributed dynamic matching of two groups of agents with	♦ Kyoto, Japan different sensing

Experiences

Oct. 2022 – Present	Student Member of Advanced Mathematical Science for Mobility Society. The joint project of Kyoto University and Toyota Motor Corporation.
Sep. 2022	Internship at Mitsubishi Heavy Industries, Ltd. Design and simulation of a controller for submarines.
Apr. 2022 – Jul. 2022	Teaching Assistant at Kyoto University, Kyoto Japan. Teaching assistant of the Practice of Basic Informatics Class.
Mar. 2022 – Nov. 2022	Office Assistant at Kyoto University, Kyoto Japan. Translation of a monograph on multi-agent control into Japanese.

Research Publications

Peer Reviewed International Conference Proceedings

ranges

- [1] **Y. Watanabe** and K. Sakurama, "Distributed optimization of clique-wise coupled problems," in *the* 62nd IEEE Conference on Decision and Control (CDC), Singapore, 2023 (accepted).
- Y. Watanabe and K. Sakurama, "Accelerated distributed projected gradient descent for convex optimization with clique-wise coupled constraints," in *the 22nd IFAC World Congress*, Yokohama, Japan, 2023.

[3] **Y. Watanabe** and K. Sakurama, "Distributed dynamic matching of two groups of agents with different sensing ranges," in *the 61st IEEE Conference on Decision and Control (CDC)*, Cancun, Mexico, 2022, pp. 5916–5921. ODI: 10.1109/CDC51059.2022.9993395.

Papers in Preparation & Under Review

- [1] **Y. Watanabe** and K. Sakurama, "Distributed optimization of clique-wise coupled problems via three-operator splitting," submitted to *IEEE Transactions on Automatic Control*.
- [2] **Y. Watanabe**, K. Sakurama, and H.-S. Ahn, "Gradient-based distributed controller design over directed networks," submitted to *IEEE Transactions on Control of Network Systems*.

Awards

2023 Funai Overseas Scholarship.

This scholarship will cover two years of graduate school tuition plus a stipend of 3,000USD a month for living expenses. (Only for the UK, it will cover three years.)

JSPS Research Fellowship for Young Scientist (Tokubetsu Kenkyuin) DC1.

A governmental three-year fellowhip for Ph.D. students at Japanese institutions. The acceptance rate is around 14.3%.

IEEE CSS Student Travel & Workshop Support Programs of CDC 2023.

SCI Outstanding Student Presentation Award, SCI'23, Kyoto, Japan.

The 2023 ISCIE Young Investigators Award, The Institute of Systems, Control and Information Engineers, Japan.

This award is given to around five outstanding young researchers in the Japanese control community.

Skills

Languages English: IELTS (Academic) overall score: 7.0 (June, 2023 & September, 2023).

Japanese: Native.

Coding MATLAB, Python, and LaTeX.

Hobbies Marathon, juggling, training, etc.

References

Prof. Kazunori Sakurama (Kyoto University) sakurama@i.kyoto-u.ac.jp
Prof. Toshiyuki Ohtsuka (Kyoto University) ohtsuka@i.kyoto-u.ac.jp
Prof. Kenta Hoshino (Kyoto University) hoshino@i.kyoto-u.ac.jp