

MOTOYA OHNISHI

Last update: Oct 2019 — "<https://homes.cs.washington.edu/~mohnishi/>" — mohnishi@cs.washington.edu

EDUCATION

University of Washington , Seattle, Washington, USA Ph.D. in Computer Science and Engineering	Sept 2019 - present
Royal Institute of Technology , Stockholm, Sweden M.S. in Electrical Engineering (Major: Systems, Control and Robotics)	Sept 2016 - Mar 2019 GPA: 4.82/5.00
Keio University , Tokyo, Japan M.S. in Integrated Design Engineering (Major: Electronics and Electrical Engineering)	Apr 2016 - Mar 2019 GPA: 3.87/4.00
Keio University , Tokyo, Japan B.E. in Electronics and Electrical Engineering	Apr 2012 - Mar 2016 GPA: 3.96/4.00

PUBLICATION

- **M. Ohnishi**, G. Notomista, M. Sugiyama, and M. Egerstedt, "Constraint Learning for Control Tasks with Limited Duration Barrier Functions", *Automatica*, Submitted.
- **M. Ohnishi**, L. Wang, G. Notomista, and M. Egerstedt, "Barrier-Certified Adaptive Reinforcement Learning with Applications to Brushbot Navigation", *IEEE Transactions on Robotics*, 2019.
- **M. Ohnishi**, M. Yukawa, M. Johansson, and M. Sugiyama, "Continuous-time Value Function Approximation in Reproducing Kernel Hilbert Spaces", *Advances in Neural Information Processing Systems 31*, pp. 2813-2824, 2018. (News: <https://aip.riken.jp/news/nips2018/>)
- **M. Ohnishi**, and M. Yukawa, "Online Nonlinear Estimation via Iterative L^2 -Space Projections: Reproducing Kernel of Subspace", *IEEE Transactions on Signal Processing*, vol. 66, no. 15, pp. 4050-4064, 2018.
- **M. Ohnishi**, and M. Yukawa, "Online Learning in L^2 Space with Multiple Gaussian Kernels", *European Signal Processing Conference (EUSIPCO)*, pp. 1594-1598, 2017.

EMPLOYMENT

Graduate Assistant (Paul G. Allen School of CS & E) - Working with Emanuel Todorov and Sham Kakade	Sept 2019 -
Researcher (The Keio Leading-edge Laboratory of Science and Technology)	May 2019 - Aug 2019
Research Assistant (The Center for Advanced Intelligence Project, RIKEN) - Belong to the mathematical science team led by Kenichi Bannai, working with Masashi Sugiyama on RL	May 2018 - Aug 2019
Visiting Researcher (GRITS Lab, Georgia Institute of Technology) - Conduct a robotics research at the GRITS Lab led by Magnus Egerstedt	Jul 2017 - Jan 2018
Research Assistant (Dept. Automatic Control, KTH) - Develop a toolbox of Nonlinear Model Predictive Control (NMPC) for Julia under Mikael Johansson (Created a new modeling language (interaction) with MathProgBase to efficiently solve NMPC problems)	Dec 2016 - Jan 2017
Teaching Assistant (Dept. Electronics and Electrical Engineering, Keio) - Teach undergraduate students how to design an integrator and NAND circuits with an operational amplifier and a transistor, in addition to how to use oscilloscopes, signal generators, etc.	Apr 2018 - Aug 2018 Apr 2016 - Aug 2016

ACTIVITIES

Peer-Reviewer Experience

- IEEE Transactions on Signal Processing (TSP)
- IEEE Signal Processing Letters

Workshop

- RIKEN AIP & Israeli universities/institutes @Tel Aviv Nov 2018
Poster presentation: Continuous-time Value Function Approximation in Reproducing Kernel Hilbert Spaces
- RIKEN AIP & National University of Singapore @Singapore Sept 2018
Poster presentation: Online Nonlinear Estimation via Iterative L^2 -Space Projections

Invited Talk

- Prof. Stefanos Nikolaidis @ University of Southern California Feb 2019
Title: Adaptive Safe Learning and Continuous-time Reinforcement Learning

AWARDS & GRANTS

- Repayment exemption: Japan Student Services Organization Student Loan** Jun 2019
- Based on academic merit, a repayment exemption was granted by Japan Student Services Organization for the M.S. study (2016-2019)

- Wissner-Slivka Endowed Graduate Fellowship in Computer Science Engineering** May 2019
- Fellowship for the first academic year of my Ph.D. study (2019-2020)

- Funai Overseas Scholarship** Nov 2018
- Fellowship for the Ph.D. study abroad. This funding is expected to cover two years of my Ph.D. study (2020-2022)

- NeurIPS 2018 Travel Award** Oct 2018
- Travel grant awarded for our paper presented at NeurIPS 2018, Montreal, Canada

- Grants for International Human Resources** Nov 2017
- Scholarship awarded to selected Keio university students studying abroad

- KLL 2017 Master's Program Research Grant** Aug 2017
- Research grant for master students presenting their researches at international conferences

- Travel Grant** Jun 2017
- Travel grant awarded by the School of Electrical Engineering, KTH, to selected students conducting their master thesis projects outside of Sweden

- Grants of the Scandinavia-Japan Sasakawa Foundation** Mar 2017
- Research grant awarded for selected projects related to Scandinavian countries

- Grants for International Human Resources** Nov 2016

- Best Undergraduate Research Award** Mar 2016
- The best undergraduate research award in the field of information technology in Dept. EEE, Keio Univ.

LANGUAGES AND OTHER INFORMATION

- Language** Japanese (Mother tongue), English (Advanced, TOEFL(2018/3): 107/120), Chinese (Intermediate), Swedish (Passed B1/B2 level)