

Yu Terada

Postdoctoral Scholar at **The Theoretical Neuroscience Lab,**
Neurobiology Section, Division of Biological Sciences,
University of California San Diego,
The Center for Neural Circuits and Behavior,
University of California San Diego, La Jolla, CA 92093, United States of America
yuterada@ucsd.edu
<https://yu-terada.github.io/>

Current position

The Theoretical Neuroscience Lab,
Neurobiology Section, Division of Biological Sciences,
University of California San Diego United States of America
Postdoctoral Scholar March 2022 - Present
Supervisor: Prof. Johnatan (Yonatan) Aljadeff

Past position

- Main affiliation

Lab for Neural Computation and Adaptation,
RIKEN Center for Brain Science Japan
Research Scientist October 2021 - February 2022
Special Postdoctoral Researcher April 2018 - September 2021
Supervisor: Dr. Taro Toyozumi

Kabashima Lab,
Department of Mathematical and Computing Science, School of Computing,
Tokyo Institute of Technology Japan
Postdoctoral Researcher April 2017 - March 2018
Supervisor: Prof. Yoshiyuki Kabashima

- Concurrent affiliation

Kabashima Lab,
Department of Mathematical and Computing Science, School of Computing,
Tokyo Institute of Technology Japan
Visiting Postdoctoral Researcher April 2018 - March 2019
Supervisor: Prof. Yoshiyuki Kabashima

Roudi group,
Kavli Institute for Systems Neuroscience, School of Medicine,
Norwegian University of Science and Technology Norway
Visiting Postdoctoral Researcher October 2018 - February 2018, June 2019-July 2019
Supervisor: Prof. Yasser Roudi

Education

Department of Applied Analysis and Complex Systems, Graduate School of Informatics,
Kyoto University April 2012 - March 2017
Doctor and Master of Informatics
Supervisor: Prof. Toshio Aoyagi

Department of physics, School of Science,
Tokyo Institute of Technology April 2008 - March 2012
Bachelor of Science
Supervisor: Prof. Hidetoshi Nishimori

Publication, Preprint

1. Yoshiyuki Y. Yamaguchi and **Yu Terada**,
“Reconstruction of Phase Dynamics from Macroscopic Observations Based on Linear and Non-linear Response Theories”,
arXiv:2301.02173 (2022).
2. **Yu Terada**, Tomoyuki Obuchi, Takuya Isomura, and Yoshiyuki Kabashima,
“Inferring Neuronal Couplings From Spiking Data Using a Systematic Procedure With a Statistical Criterion”,
Neural Computation **32**, 2187-2211 (2020).
3. **Yu Terada** and Yoshiyuki Y. Yamaguchi,
“Linear response theory for coupled phase oscillators with general coupling functions”,
Journal of Physics A: Theoretical and Mathematical **53**, 044001 (2020).
4. **Yu Terada**, Tomoyuki Obuchi, Takuya Isomura, and Yoshiyuki Kabashima,
“Objective and efficient inference for couplings in neuronal networks”,
Advances in Neural Information Processing Systems 31 (NeurIPS 2018).
This article was featured in *Machine Learning 2019* in *Journal of Statistical Mechanics: Theory and Experiment*.
5. **Yu Terada**, Keigo Ito, Toshio Aoyagi, and Yoshiyuki Y. Yamaguchi,
“A role of asymmetry in linear response of globally coupled oscillator systems”,
arXiv:1802.08383 (2018).
6. **Yu Terada**, Keigo Ito, Toshio Aoyagi, and Yoshiyuki Y. Yamaguchi,
“Nonstandard transitions in the Kuramoto model: a role of asymmetry in natural frequency distributions”,
Journal of Statistical Mechanics: Theory and Experiment, 013403 (2017).
This article was selected in *JSTAT Highlights*.
7. **Yu Terada** and Toshio Aoyagi, “Dynamics of two populations of phase oscillators with different frequency distributions”, *Physical Review E* **94**, 012213 (2016).

Grants and awards

- **The Uehara Memorial Foundation:**
Postdoctoral fellowship
Host: Prof. Johnatan (Yonatan) Aljadeff at University of California San Diego
Period: March 2022 - February 2023
Amount: ¥4,500,000

- **Japan Society for the Promotion of Science:**
Grants-in-Aid for Scientific Research (KAKENHI)
Title: “Theoretical research on spatiotemporal information processing in the brain”
Category: Grant-in-Aid for Early-Career Scientists
Period: April 2019 - March 2023
Amount: ¥4,290,000

- **TATEISI Science and Technology Foundation:**
International Visiting
Host: Prof. Yasser Roudi at Norwegian University of Science and Technology
Period: October 2018 - January 2019
Amount: ¥500,000

- **Special Postdoctoral Researcher Program at RIKEN**
Title: “Computational role of deterministic property in neural networks”
Host: Dr. Taro Toyozumi
Period: April 2018 - September 2021
Amount: ¥3,000,000