# Yu Terada

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## Current position

The Theoretical Neuroscience Lab, Neurobiology Section, Division of Biological Sciences, University of California San Diego Special Postdoctoral Researcher

March 2022 - Present

USA

Japan

Supervisor: Prof. Johnatan (Yonatan) Aljadeff

#### Past position

#### • Main affiliation

## Lab for Neural Computation and Adaptation, **RIKEN Center for Brain Science**

October 2021 - February 2022

Research Scientist Special Postdoctoral Researcher Supervisor: Dr. Taro Toyoizumi

April 2018 - September 2021

## Kabashima Lab,

#### Department of Mathematical and Computing Science, School of Computing, Tokyo Institute of Technology Japan April 2017 - March 2018

Postdoctoral Researcher

Supervisor: Prof. Yoshiyuki Kabashima

#### • Concurrent affiliation

#### Kabashima Lab,

# Department of Mathematical and Computing Science, School of Computing,

Tokyo Institute of Technology

Japan

April 2018 - March 2019

Visiting Postdoctoral Researcher

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

# 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

#### **Publications**

1. 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).

2. 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).

3. 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.

4. 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).

5. 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*.

6. **Yu Terada** and Toshio Aoyagi, "Dynamics of two populations of phase oscillators with different frequency distributions", *Physical Review E* **94**, 012213 (2016).

## • The Uehara Memorial Foundation:

## Postdoctoral fellowship

Host: Prof. Johnatan (Yonatan) Aljadeff at University of California San Diego

Period: February 2022 - March 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 Toyoizumi

Period: April 2018 - Sepetember 2021

Amount: \(\frac{\pma}{3}\),000,000