# Taisuke Yasuda

#### Curriculum Vitae

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Updated October 5, 2020

### **Education**

#### **Carnegie Mellon University**

Pittsburgh, PA

- Ph.D. in Computer Science, Aug 2020 Present
- Advisor: David Woodruff

#### **Carnegie Mellon University**

Pittsburgh, PA

- M.S. in Mathematical Sciences, Aug 2017 May 2019
- Advisor: Ian Tice
- Thesis: Asymptotic Stability of the Faraday Wave Problem

#### **Carnegie Mellon University**

Pittsburgh, PA

- B.S. in Mathematical Sciences, Aug 2015 May 2019
- Additional Major in Computer Science

## **Experience**

Akuna Capital

Chicago, IL

• Junior Quantitative Trader, Aug 2019 - Aug 2020

## **Research Publications**

- [1] Manuel Fernández V, David P. Woodruff, and Taisuke Yasuda. Graph Spanners in the Message-Passing Model. In *Proceedings of the 11th Innovations in Theoretical Computer Science (ITCS)*, January 2020. arXiv:1911.05991
- [2] David Altizio, Ian Tice, Xinyu Wu, and Taisuke Yasuda. The Nonlinear Stability Regime of the Viscous Faraday Wave Problem. In *Quart. Appl. Math.*, December 2019. arXiv:1905.04747
- [3] Manuel Fernández V, David P. Woodruff, and Taisuke Yasuda. The Query Complexity of Mastermind with  $\ell_p$  Distances. In *Proceedings of the 22nd International Workshop on Approximation Algorithms for Combinatorial Optimization Problems (APPROX)*, September 2019. arXiv:1909.10668
- [4] Manuel Fernández V, David P. Woodruff, and Taisuke Yasuda. Tight Kernel Query Complexity of Kernel Ridge Regression and Kernel *k*-means Clustering. In *Proceedings of the 36th International Conference on Machine Learning (ICML)*, June 2019. arXiv:1905.06394

# **Teaching**

Spring 2019	Algorithms (15-451)	TA
Spring 2019	Concepts of Mathematics (21-127)	TA
Fall 2018	Linear Algebra (21-241)	TA
Spring 2018	Principles of Real Analysis II (21-356)	grader
Fall 2016	Putnam Seminar (21-295)	grader

## **Honors and Awards**

Mar 2018	Top 207	Putnam Mathematical Competition
Mar 2017	Top 500	Putnam Mathematical Competition
Feb 2017		Undergraduate Research Fellowship in Computational Neuroscience
Feb 2016	Тор 3	TartanHacks 2016
Feb 2016	Winner	All University Orchestra Concerto Competition
May 2015		Carnegie Scholarship
Mar 2015	2nd place	Pathfinder Scholarship in Mathematics

## **Professional Service**

• Conference subreviewer for SODA 2020, ITCS 2020, ESA 2020

## Talks and Presentations

- Graph spanners in the message-passing model
  - ITCS, January 2020
- Tight kernel query complexity of kernel ridge regression and kernel k-means clustering
  - ICML, June 2019
  - CMU Meeting of the Minds, May 2019
- How it's made: lower bounds for randomized algorithms
  - CMU Summer Math Seminar, July 2018