R. TEAL WITTER

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EDUCATION

NYU Tandon
PhD in Computer Science
Advised by Lisa Hellerstein and Christopher Musco

September 2020 - Present
Dean's PhD Fellowship

Middlebury College
BA in Mathematics
BA in Computer Science

February 2017 - May 2020
Summa Cum Laude
Phi Beta Kappa

RESEARCH INTERESTS

Deep learning, AI for social good, discrete optimization, graph algorithms, quantum computing

NATIONAL AWARDS

NSF Graduate Research Fellow	2022
Fulbright Scholar (I declined due to COVID)	2020
Goldwater Scholar	2019
Academic All-American (National Speech and Debate Association)	2015

PEER-REVIEWED PUBLICATIONS

Note: As is the tradition in theoretical computer science, authors are ordered alphabetically by last name unless otherwise noted with an asterisk.

Lisa Hellerstein, Thomas Lidbetter, R. Teal Witter. A Local Search Algorithm for the Min-Sum Submodular Cover Problem. *International Symposium on Algorithms and Computation (ISAAC 2022).*

Lisa Hellerstein, Devorah Kletenik, Naifeng Liu, R. Teal Witter. Adaptivity Gaps for the Stochastic Boolean Function Evaluation Problem. *Workshop on Approximation and Online Algorithms (WAOA 2022).*

Christopher Musco, Indu Ramesh, Johan Ugander, R. Teal Witter. How to Quantify Polarization in Models of Opinion Dynamics. *International Workshop on Mining and Learning with Graphs (MLG 2022).*

R. Teal Witter. Backgammon is Hard. *International Conference on Combinatorial Optimization and Applications (COCOA 2021).*

Shelby Kimmel, R. Teal Witter. A Query-Efficient Quantum Algorithm for Maximum Matching on General Graphs. *Algorithms and Data Structures Symposium (WADS 2021).*

R. Teal Witter, Alex Lyford.* Applications of Graph Theory and Probability in the Board Game *Ticket to Ride*. *International Conference on the Foundations of Digital Games (FDG 2020).*

Kai DeLorenzo, Shelby Kimmel, R. Teal Witter. Applications of the Quantum Algorithm for *st*-Connectivity. *Conference on the Theory of Quantum Computation, Communication and Cryptography (TQC 2019).*

TEACHING

Deep Learning (NYU CS-GY 6953)
Course Assistant   *Fall 2022*

Algorithmic Machine Learning and Data Science (NYU CS-GY 6763)
Course Assistant   *Fall 2021, Spring 2022*

Machine Learning (NYU CS-GY 6923)
Course Assistant   *Spring 2021*

TALKS

Adaptivity Gaps for the Stochastic Boolean Function Evaluation Problem

Workshop on Approximation and Online Algorithms   September 2022

How to Quantify Polarization in Models of Opinion Dynamics

International Workshop on Mining and Learning with Graphs   August 2022

A Local Search Algorithm for the Min-Sum Submodular Cover Problem

International Symposium on Artificial Intelligence and Mathematics   January 2022

Backgammon is Hard

International Conference on Combinatorial Optimization and Applications   December 2021

A Query-Efficient Quantum Algorithm for Maximum Matching on General Graphs

Algorithms and Data Structures Symposium   August 2021

Applications of Graph Theory and Probability in the Board Game *Ticket to Ride*

International Conference on the Foundations of Digital Games   September 2020

MAA Contributed Paper Session at the Joint Mathematics Meetings   January 2020

Applications of the Quantum Algorithm for st-Connectivity

Conference on the Theory of Quantum Computation, Communication and Cryptography   June 2019

SERVICE

I have reviewed papers for the following conferences: QIP 2022, ICALP 2022, TQC 2022.

I run a weekly coding session at Brooklyn International High School.   Spring 2021 - Present