Clayton Thomas

Education and Employment

- 2023–2025 **Postdoctoral Researcher**, Microsoft Research (New England), Economics and Computation Group
- 2018–2023 Ph.D. & M.S. in Computer Science, Princeton University, GPA: 3.95
- 2014–2017 B.S. in Mathematics & in Computer Science, Purdue University, GPA: 4.00

Job Market Paper

[1] Yannai Gonczarowski, Ori Heffetz, and Clayton Thomas. "Strategyproofness-Exposing Descriptions of Matching Mechanisms". **Reject and Resubmit at AER**. New version of "Strategyproofness-Exposing Mechanism Descriptions" (see below). 2024. URL: https://clathomasprime.github.io/papers/SeDoMM.pdf.

Other Papers

- [2] Aadityan Ganesh, Clayton Thomas, and S. Matthew Weinberg. "Revisiting the Primitives of Transaction Fee Mechanism Design". In: *Proceedings of the 25th ACM Conference on Economics and Computation (EC)*. 2024. URL: https://arxiv.org/abs/2409.18166.
- [3] Yannai Gonczarowski and Clayton Thomas. "Structural Complexities of Matching Mechanisms". In: *Proceedings of the 56th Annual ACM SIGACT Symposium on Theory of Computing (STOC)*. 2024. URL: https://arxiv.org/abs/2212.08709.
- [4] Yannai A. Gonczarowski, Ori Heffetz, Guy Ishai, and Clayton Thomas. "Describing Deferred Acceptance and Strategyproofness to Participants: Experimental Analysis". In: Proceedings of the 25rd ACM Conference on Economics and Computation (EC). In Review at Econometrica. 2024. URL: https://arxiv.org/abs/2410.07566.
- [5] Shiri Ron, Clayton Thomas, S. Matthew Weinberg, and Qianfan Zhang. "Communication Separations for Truthful Auctions: Breaking the Two-Player Barrier". In: 65th IEEE Symposium on Foundations of Computer Science (FOCS). 2024. URL: https://arxiv.org/abs/2409.08241.
- [6] Clayton Thomas. "Priority-Neutral Matching Lattices Are Not Distributive". Working Paper. 2024. URL: https://arxiv.org/abs/2404.02142.
- [7] Yannai Gonczarowski, Ori Heffetz, and Clayton Thomas. "Strategyproofness-Exposing Mechanism Descriptions". In: *Proceedings of the 24rd ACM Conference on Economics and Computation (EC)*. 2023. URL: https://arxiv.org/abs/2209.13148.
- [8] Linda Cai and Clayton Thomas. "The short-side advantage in random matching markets". In: *Proceedings of the 5th SIAM Symposium on Simplicity in Algorithms* (SOSA). 2022. URL: https://arxiv.org/abs/1910.04406.

- [9] Itai Ashlagi, Mark Braverman, Amin Saberi, Clayton Thomas, and Geng Zhao. "Tiered Random Matching Markets: Rank Is Proportional to Popularity". In: 12th Innovations in Theoretical Computer Science Conference (ITCS). 2021. URL: https://arxiv.org/abs/2009.05124.
- [10] Aviad Rubinstein, Raghuvansh R Saxena, Clayton Thomas, S Matthew Weinberg, and Junyao Zhao. "Exponential communication separations between notions of selfishness". In: *Proceedings of the 53rd Annual ACM SIGACT Symposium on Theory of Computing (STOC)*. 2021. URL: https://arxiv.org/abs/2012.14898.
- [11] Clayton Thomas. "Classification of Priorities Such That Deferred Acceptance is OSP Implementable". In: Proceedings of the 22nd ACM Conference on Economics and Computation (EC). 2021. URL: https://arxiv.org/abs/2011.12367.
- [12] Linda Cai, Clayton Thomas, and S. Matthew Weinberg. "Implementation in Advised Strategies: Welfare Guarantees from Posted-Price Mechanisms When Demand Queries Are NP-Hard". In: 11th Innovations in Theoretical Computer Science Conference (ITCS). 2020. URL: https://arxiv.org/abs/1910.04342.
- [13] Linda Cai and Clayton Thomas. "Representing All Stable Matchings by Walking a Maximal Chain". Mimeo. 2019. URL: https://arxiv.org/abs/1910.04401.
- [14] Venkata Gandikota, Elena Grigorescu, Clayton Thomas, and Minshen Zhu. "Maximally recoverable codes: The bounded case". In: In Allerton Conference on Communication, Control, and Computing. 2017. URL: https://ieeexplore.ieee.org/document/8262862.

Leadership and Service

- 2023-2024 Microsoft Research New England Econ Seminar Co-Organizer
- 2023 & 2024 SIGecom EC Program Committee Member
 - 2022-2024 Journal Referee

ACM TEAC (x 3), Management Science, International Journal of Game Theory, Experimental Economics, Games and Economic Behavior

- 2019-2024 Subreviewer for theoretical CS conferences
 WINE'19, ESA'20, SODA'20, WINE'20, ITCS'21, SODA'21, ICALP'21, WINE'21,
 ITCS'22, ESA'22, SODA'22, STOC'22, FOCS'23, SODA'23, STOC'24, ICALP '24,
 SODA'24
 - 2022 SIGecom Seminar Series Co-organizer
 - 2022 SIGecom EC'22 Website Chair / Student General Chair Updated website for 2022 ACM Conference on Economics and Computation. Screen-recorded conference tutorials.
- March 2021 Co-Organized Princeton TCS Student Theory Day
 - 2019-2020 Princeton CS Department Preceptor

 For "Reasoning about Computation" and "Economics and Computation".

 Lectured in precept, graded homework, answered online forum questions.

 Assisted in the transition to online instruction during Spring 2020.
 - 2019-2020 Gems of TCS Reading Group Organizer

Invited Talks

October 2024 DIMACS Workshop on Simplicity in Mechanism Design and Preference Elicitation

November 2023 Harvard University: CS Theory Seminar Northwestern/TTIC CS: 2022 Chicago Junior Theorists January 2023 Workshop December 2022 Harvard University: EconCS Seminar December 2022 University of Tokeyo Market Design Center: Rising Stars in Market Design Non-Academic Work Experience Summer 2016 Facebook Software Engineering Intern, Menlo Park, CA and 2017 Worked on Haskell code quality, debugging, and efficiency in Facebook's Sigma infrastructure. Worked on Retrie, a Haskell refactoring tool. Summer 2015 Salesforce Software Engineering Intern, Indianapolis, IN Created a Google Chrome developer extension for debugging installation of Predictive Intelligence embedded Javascript. Awards and Honors 2022-2023 Wallace Memorial Fellowship in Engineering Awarded to 3 students across Princeton School of Engineering. 2023 Siebel Scholar award Thomas and Stacey Siebel Foundation. 2021 Princeton University School of Engineering and Applied Science Award for Excellence 2018 & 2020 NSF GRFP Honorable Mention CRA Outstanding Undergraduate Researcher Award Honorable Mention Purdue University Dean's List and Semester Honors 2014-2017 2015 Neel Scholarship Awarded by the computer science department for performance in coursework. 2014-2017 National Merit Corporate Scholarship

Provided by Dow AgroSciences.