Peter Doe

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EDUCATION

Ph.D., Economics, **California Institute of Technology**, expected in 2025

Committee: Luciano Pomatto (co-advisor), Federico Echenique (co-advisor), Omer Tamuz (chair), Charlie Sprenger

B.B.A., *summa cum laude*, Economics, Mathematics, Statistics, Baylor Business Fellows, **Baylor University**, 2020

FIELDS & INTERESTS

Market Design, Microeconomic Theory, Game Theory, Behavioral Economics, Computational Economics

REFERENCES

Federico Echenique
Professor of Economics, UC Berkeley
fede@econ.berkeley.edu

Luciano Pomatto
Professor of Economics, Caltech
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Omer Tamuz
Professor of Economics and Mathematics, Caltech
tamuz@caltech.edu

WORKING PAPERS

1. Matching With Pre-Existing Binding Agreements: The Agreeable Core (**Job Market Paper**)
2. Ranked-to-Match: The Effects of Early Matching in the NRMP

GRANTS & AWARDS

Stephen A. Ross Memorial Fellowship, Caltech, 2024
Highest Ranking Man in the Hankamer School of Business, Baylor, 2020
Scholars Week Award for Outstanding Poster Presentation, Baylor, 2020
Undergraduate Research and Scholarly Achievement Small Grant, Baylor, 2019
Regents' Gold Scholarship, Baylor, 2016-2020

Additional Regents' Gold Scholarship, Baylor, 2016-2020
National Merit Scholarship, National Merit Scholarship Corporation, 2016-2020
Schultz-Werba Mathematics Scholarship, Baylor, 2018-2020
Janet Rhines Economics Scholarship, Baylor, 2018-2020
Ted and Sue Getterman Honors College Scholarship, Baylor, 2016-2019
Earl and Maxine Bodine Scholarship, Baylor, 2017

SEMINAR & CONFERENCE PRESENTATIONS

2024: ACM Conference on Economics and Computation (EC, poster presentation)
2023: Baylor University

TEACHING

Teaching Assistant, California Institute of Technology
SS 201A Analytical Foundations of Social Science, Fall 2021, Fall 2023
SS 201B Analytical Foundations of Social Science, Winter 2021, Winter 2023
SS 201C Analytical Foundations of Social Science, Spring 2021, Spring 2023
SS 202A Political Theory, Fall 2021, Fall 2023
SS 202B Political Theory, Winter 2022, Winter 2024
SS 202C Political Theory, Spring 2022, Spring 2024
SS 205A Foundations of Economics, Fall 2021, Fall 2023
SS 205B Foundations of Economics, Winter 2022, Winter 2024
SS 205C Foundations of Economics, Spring 2022, Spring 2024
SS 222A Econometrics, Fall 2021, Fall 2023
SS 222B Econometrics, Winter 2022, Winter 2024
SS 222C Econometrics, Spring 2022, Spring 2024
CMS/CS/EE/IDS 144 Networks: Structure and Economics, Winter 2023
Ec 117 Matching Markets, Spring 2023

Note: SS is social science, CMS is computing + mathematical sciences, IDS is information and data sciences

MISC

Programming: Proficient in `R`, familiar with `Mathematica` and `C++`

WORKING PAPER ABSTRACTS

1. Matching With Pre-Existing Binding Agreements: The Agreeable Core (**Job Market Paper**),

Abstract. Matching market models ignore prior commitments. Yet many job seekers, for example, are already employed, and the same holds for many other matching markets. I analyze two-sided matching markets with pre-existing binding agreements between market participants. In this model, a pair of participants bound to each other by a pre-existing agreement must agree to any action they take. To analyze their behavior, I propose a new solution concept, the agreeable core, consisting of the matches which cannot be renegotiated without violating the binding agreements. My main contribution is an algorithm that constructs such a match by a novel combination of the Deferred Acceptance and Top Trading Cycles algorithms. The algorithm is robust to various manipulations and has applications to numerous markets including the resident-to-hospital match, college admissions, school choice, and labor markets.

2. Ranked-to-Match: The Effects of Early Matching in the NRMP

Abstract. I study a behavioral model of early matching within the context of the National Resident Matching Program. In my model, two hospitals choose to give early offers to doctors prior to a stable match. Some doctors have a behavioral preference to match early while others do not. I show that the less-desirable program benefits from the option to make early offers. My results provide a theoretical foundation for behavior widely documented within the medical ethics and graduate medical education literature and confirm beliefs commonly held by residency program directors.