TOMASZ PONITKA

https://ponitka.github.io/

EDUCATION

2022 - Present

Tel Aviv University

PhD in Computer Science

Advised by Michal Feldman / Research areas: Economics and Computation, Fair Division of Indivisible Goods, Algorithmic Contract Design

2018 - 2022

Oxford University

Master's Degree in Mathematics and Computer Science

Received a First class degree

Advised by Elias Koutsoupias / Thesis: Mechanism Design on Stars

PUBLICATIONS

Anonymous Multi-Agent Contracts
with Johannes Brustle, Paul Dütting, Stefano Leonardi, and Matteo Russo
under submission

The Panel Complexity of Sortition: Is 12 Angry Men Enough?
with Johannes Brustle, Simone Fioravanti, and Jeremy Vollen
under submission

Online Fair Division With Subsidy: When Do Envy-Free Allocations Exist, and at What Cost?
with Pooja Kulkarni, Ruta Mehta, and Vishnu V. Narayan
published in the Conference on Autonomous Agents and Multiagent Systems ***(AAMAS 2026)***

One Action Too Many: Inapproximability of Budgeted Combinatorial Contracts
with Michal Feldman, Yoav Gal-Tzur, and Maya Schlesinger
published in the Conference on Innovations in Theoretical Computer Science ***(ITCS 2026)***

Probing EFX via PMMS: (Non-)Existence Results in Discrete Fair Division
with Jarosław Byrka and Franciszek Malinka
published in the AAAI Conference on Artificial Intelligence ***(AAAI 2026)***

Budget-Feasible Contracts
with Michal Feldman, Yoav Gal-Tzur, and Maya Schlesinger
published in the ACM Conference on Economics and Computation ***(EC 2025)***

The Pseudo-Dimension of Contracts
with Paul Dütting, Michal Feldman, and Ermis Soumalias
published in the ACM Conference on Economics and Computation ***(EC 2025)***

Proportionally Fair Makespan Approximation
with Michal Feldman, Jugal Garg, and Vishnu V. Narayan
published in the AAAI Conference on Artificial Intelligence ***(AAAI 2025)***

Breaking the Envy Cycle: Best-of-Both-Worlds Guarantees for Subadditive Valuations
with Michal Feldman, Simon Mauras, and Vishnu V. Narayan
published in the ACM Conference on Economics and Computation ***(EC 2024)***

On Optimal Tradeoffs between EFX and Nash Welfare
with Michal Feldman and Simon Mauras
published in the AAAI Conference on Artificial Intelligence ***(AAAI 2024)***

TEACHING

2024

Teaching Assistant / Tel Aviv University
Organised exercise sessions for the Algorithmic Game Theory course.

2019 - 2023

Programming Camp Instructor / 14th High School in Wrocław
Tutored at six high school programming camps.

2021

Computer Science Tutor / 76th Primary School in Wrocław
Instructed a weekly class for gifted 15-year-olds.

WORK EXPERIENCE

Jane Street

Jul-Sep 2021 **Software Engineering Intern**

Developed an algorithm in OCaml to efficiently balance positions in bond exchange-traded funds across the firm's multiple European depositories.

Google

Jun-Sep 2020 **Software Engineering Intern**

Worked on a C++ backend implementation for the large-scale WebGPU project within Google Chrome.

PROFESSIONAL SERVICE

Program Committee Member:

AAAI 2026, WINE 2025

Conference Reviewer:

STOC 2026, SODA 2026, FSTTCS 2025, ESA 2025, STOC 2025

SELECTED TALKS

December 2025 ***Probing EFX via PMMS: (Non-)Existence Results in Discrete Fair Division***
EconCS Seminar at Hebrew University of Jerusalem
Jerusalem, Israel

November 2025 ***Probing EFX via PMMS: (Non-)Existence Results in Discrete Fair Division***
Social Choice Seminar at AGH University of Kraków
Kraków, Poland

July 2025 ***The Pseudo-Dimension of Contracts***
ACM Conference on Economics and Computation
Stanford, US

February 2025 ***Proportionally Fair Makespan Approximation***
AAAI Conference on Artificial Intelligence
Philadelphia, US

February 2025 ***The Panel Complexity of Sortition***
Theory of CS Seminar at University of Illinois Urbana-Champaign
Urbana-Champaign, US

November 2024 ***The Pseudo-Dimension of Contracts***
French-Israeli Workshop on Foundations of Computer Science
Paris, France

July 2024 ***Breaking the Envy Cycle: Best-of-Both-Worlds Guarantees for Subadditive Valuations***
ACM Conference on Economics and Computation
New Haven, US

November 2023 ***Fair Division of Indivisible Goods***
Computer Science Doctoral Seminar
Wrocław, Poland

May 2023 ***On Optimal Tradeoffs between EFX and Nash Welfare***
French-Israeli Workshop on Foundations of Computer Science
Paris, France

March 2023 ***On Optimal Tradeoffs between EFX and Nash Welfare***
Israel Algorithmic Game Theory Day
Herzliya, Israel

AWARDS

2019 - 2022 ***Casberd Scholarship***

2017 & 2018 ***2 x Laureate of the Polish Olympiad in Informatics***

2017 & 2018 ***2 x Finalist of the Polish Olympiad in Mathematics***