

# Bar Light

Tel Aviv University  
barlight@tauex.tau.ac.il  
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## Positions

Assistant Professor, Department of Statistics and Operations Research, School of Mathematics, Tel Aviv University, 2023-  
Postdoctoral Researcher, Microsoft Research NYC, 2021-2023.

## Education

PhD, Operations Research, Stanford University, 2021.  
Advisors: Gabriel Y. Weintraub and Ramesh Johari.  
MSc, Operations Research, Tel Aviv University, 2016.  
Advisor: Ehud Lehrer.  
BA and MA, Economics, Tel Aviv University, 2015.

## Publications and Accepted Papers

1. Quality selection in two-sided markets: A constrained price discrimination approach (with Ramesh Johari and Gabriel Weintraub). To appear in *Operations Research*.
2. General equilibrium in a heterogeneous-agent incomplete-market economy with many consumption goods and a risk-free bond. *Operations Research*, 2023.
3. Improving Hoeffding's inequality using higher moments information. *Statistics & Probability Letters*, 2023.
4. Mean field equilibrium: uniqueness, existence and comparative statics (with Gabriel Weintraub). *Operations Research*, 2022.  
Appeared in Highlights Beyond EC 2022.
5. New Jensen-type inequalities and their applications. *Journal of Convex Analysis*, 2022.
6. Stochastic comparative statics in Markov decision processes. *Mathematics of Operations Research*, 2021.
7. The family of  $\alpha, [a, b]$  stochastic orders: risk vs. expected value (with Andres Perloth). *Journal of Mathematical Economics*, 2021.
8. Uniqueness of equilibrium in a Bewley-Aiyagari model. *Economic Theory*, 2020.
9. Precautionary saving in a Markovian earnings environment. *Review of Economic Dynamics*, 2018.
10. The effect of interest rates on consumption in an income fluctuation problem (with Ehud Lehrer). *Journal of Economic Dynamics and Control*, 2018.

## Working Papers

1. Equilibria in Repeated Games under No-Regret with Dynamic Benchmarks (with Ludovico Crippa and Yonatan Gur).
2. Budget Pacing in Repeated Auctions: Regret and Efficiency without Convergence (with Jason Gaitonde, Yingkai Li, Brendan Lucier, and Aleksandrs Slivkins).
3. Social Learning under Platform Influence: Consensus and Persistent Disagreement (with Jerry Anunrojwong, Ozan Candogan, and Nicole Immorlica).
4. A Characterization of Bounded Stochastic Dominance (with Andres Perloth).
5. The Principle of Optimality in Dynamic Programming: A Pedagogical Note.
6. Nonlinear Markov Chains with an Aggregator and their Applications.

## Grants, Fellowships, & Awards

ISF Grant 130,000\$ (2023-2027).

Graduate School Fellowship, Stanford University, 2016-2021.

Jaedicke Merit Award, 2017.

## Teaching Experience

### Stanford University

Data Science for Platforms (MBA): 2019, teaching assistant for Ramesh Johari and Gabriel Weintraub.

Online Marketplaces (MBA): 2018-2019, teaching assistant for Gabriel Weintraub.

Optimization Simulation and Modeling (MBA): 2018, teaching assistant for Kostas Bimpikis and Daniela Saban.

### Tel Aviv University

Intermediate Microeconomics (Undergraduate): 2014-2016, teaching assistant for Ady Pauzner.

### Interdisciplinary Center Herzliya (IDC)

Intermediate Microeconomics (Undergraduate): 2014-2015, teaching assistant for Nadav Levy.

Game Theory (Graduate): Fall 2015, teaching assistant for Ady Pauzner.

## Presentations

2023: 33rd Annual POMS-Conference, Microsoft Research, National University of Singapore, Singapore Management University, Hebrew University.

2022: Annual Conference on Networks Science and Economics, ACM Conference on Economics and Computation (Highlights Beyond EC Plenary Session), Annual Society for the Advancement of Economic Theory Conference, Stanford Alumni Conference, Google Research Mountain View.

2021: Chicago Booth, Columbia DRO, Cornell ORIE, MIT Sloan, Microsoft Research, Purdue, Technion IE&M, Tel Aviv Coller, USC Marshall, INFORMS Annual Meeting.

2020: Berkeley Haas, Columbia DRO, National University of Singapore, Tel Aviv OR, Inter-University Colloquium on Analytical Research, INFORMS Annual Meeting, Kellogg-Wharton Workshop.

2019: INFORMS RMP, INFORMS Annual Meeting, YoungEC Workshop.

2018: INFORMS Annual Meeting.

### **Reviewer For Journals**

Operations Research, Econometrica, Mathematics of Operations Research, The Review of Economic Studies, Management Science, Journal of Economic Theory, Journal of Mathematical Economics, Operations Research Letters.