Date: February 2022

R E S U M E

1. PERSONAL DETAILS

Full Name: Inbal Talgam-Cohen
Identity No: 040470825
Phone numbers: 054-4304650, 04-8294935
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ORCID iD: 0000-0002-2838-3264

2. ACADEMIC DEGREES

2010-2016: PhD in Computer Science, Stanford University
2008-2010: MSc in Computer Science, Weizmann Institute
2002-2006: BSc in Computer Science, Tel-Aviv University
2002-2006: LLB in Law, Tel-Aviv University

3. ACADEMIC APPOINTMENTS

Oct. 2018-today: Senior Lecturer, Computer Science Faculty, Technion (maternity leave spring 2020)
2016-2018: Postdoctoral Researcher in Computer Science, Hebrew & Tel-Aviv Universities

4. PROFESSIONAL EXPERIENCE (outside academia)

2013: Summer Intern, Microsoft Research Herzliya
2011: Summer Intern, Yahoo! Labs Santa Clara
2006-2007: Legal Clerk, Supreme Court of Israel

5. RESEARCH INTERESTS

Algorithmic Game Theory
Theoretical Computer Science

6. TEACHING EXPERIENCE

1. Algorithms 1, undergraduate (2019-20, 2020-21, 2021-22)
2. Algorithmic Game Theory (AGT), graduate (2018-19, 2020-21, 2021-22)
3. Seminar on AGT and Learning, graduate (2018-19, 2020-21, 2021-22)

Courses 2+3 are new courses at the Technion.

7. TECHNION ACTIVITIES

N/A

8. DEPARTMENTAL ACTIVITIES

1. 2020-today: Prize committee
2. 2019-today: Admissions committee
3. 2019-today: Graduate committee
4. 2018-2021: Council secretary

9. PUBLIC PROFESSIONAL ACTIVITIES

1. 2020-today: Co-editor-in-chief of ACM SIGecom Exchanges
2. 2022: Area chair (mechanism design, contract design, auctions and pricing), EC'22
3. 2022: PC member, FORC'22 (Foundations of Responsible Computing)
4. 2021: PC co-chair, WINE'21

5. 2021: PC member, STOC'21
6. 2020: PC member, MD4SG'20 (Mechanism Design for Social Good)
7. 2020: Senior PC member, EC'20
8. 2020: PC member, ICALP'20
9. 2020: PC member, TheWebConf'20
10. 2019: Member of the SIGecom Doctoral Dissertation Award Committee
11. 2019: Grant reviewer for the U.S.-Israel Binational Science Foundation (BSF)
12. 2019: PC member, STOC'19
13. 2019: Senior PC member, EC'19
14. 2019: Panelist at the AGT Mentoring Workshop
15. 2019: Panelist at the TCS Early Career Mentoring Workshop
16. 2018: PC member, EC'18
17. 2018: PC member, WWW'18
18. 2018: PC member, APPROX'18
19. 2018: PC member, AI^3
20. 2018: PC member, WINE'18
21. 2017: PC member, EC'17
22. 2017: PC member, WWW'17
23. 2016: PC member, EC'16
24. 2015: PC member, EC'15
25. 2013-2015: Co-editor-in-chief of ACM's student magazine (XRDS)

I also frequently serve as a reviewer for scientific journals, including: SIAM Journal on Computing (SICOMP), Operations Research (OR), Mathematics of Operations Research (MOR), Management Science (MS), Games and Economic Behavior (GEB), Artificial Intelligence Journal (AIJ), Transactions on Economics and Computation (TEAC), Theoretical Computer Science (TCS).

10. MEMBERSHIP IN PROFESSIONAL SOCIETIES

- ACM
- Game Theory Society

11. FELLOWSHIPS, AWARDS AND HONORS

1. 2021-2022: Israel Council for Higher Education (VATAT) prize for interdisciplinary data science research, two-time recipient.
2. 2018-2020: Taub Fellow, supported by the Taub Family Foundation as part of the Leaders in Science and Technology program.
3. 2016-2017: Marie Curie Fellow, as part of the EU Horizon 2020 Programme.
4. 2015-2016: I-CORE Fellow, as part of the Israeli Center for Research Excellence in Algorithms.
5. 2015: ACM SIGecom Doctoral Dissertation Award.
6. 2015: Best Student Paper Award at EC'15.
7. 2014: Academy of Achievement Delegate.
8. 2013: China Theory Week invitee.
9. 2012-2015: Hsieh Family Fellow, as part of the Stanford Interdisciplinary Graduate Fellowship (SIGF).
10. 2010: Google Anita Borg Scholar.

12. GRADUATE STUDENTS

Completed PhD theses

N/A

Completed MSc theses
N/A

PhD theses in progress
1. Konstantin Zabaranyi, 2019-, thesis title: "Constrained Bayesian Persuasion".
    - Direct PhD track, co-advised with Prof. Yakov Babichenko.
    - Konstantin is a VATAT Data Science Fellow, 2022-2024 cohort.
2. Tal Alon, 2019-, thesis title: "Algorithmic Contract Design".
    - Direct PhD track (pending military approval).

MSc theses in progress
1. Nir Bachrach, 2021-2022 (expected), thesis title: "Distributional Robustness: From Pricing to Auctions".
2. A'meer A'mer, 2019-2022 (expected), thesis title: "Auctions with Interdependence and SOS: Improved Approximation".

13. SPONSORED LONG-TERM VISITORS AND POST-DOCTORAL ASSOCIATES
1. Ivan Geffner, post-doctoral associate, co-hosted at IE&M, 2021-2023 (expected).
2. Xin Huang, post-doctoral associate and Aly-Kaufman fellow, co-hosted with Yakov Babichenko, 2020-2022 (expected).
    - Xin is an Aly-Kaufman Post-doctoral Fellow, 2021-2022 cohort.
3. Ganesh Ghalme, post-doctoral associate, co-hosted with Reshef Meir, 2020-2022.
    - Upcoming position: Assistant professor at Indian Institute of Technology (IIT).
4. Landon Chu, MISTI intern (MIT International Science and Technology Initiatives), virtual, summer 2021.
5. Magdalen R. C. Dobson, MISTI intern (MIT International Science and Technology Initiatives), summer 2019.

14. RESEARCH GRANTS
Competitive
- 2021-2024, NSF-BSF Computing and Communication Foundations (CCF) grant number 2021680, "*Algorithmic Persuasion – Re-creating the Success of Algorithmic Mechanism Design*", PIs: Yakov Babichenko, Inbal Talgam-Cohen and Haifeng Xu, NIS 900,000.
- 2018-2022, Israel Science Foundation (ISF) grant number 336/18, "*Complexity in Markets: Beyond Worst-Case Analysis*", PI: Inbal Talgam-Cohen, NIS 840,000.

15. PUBLICATIONS (chronological order, author order alphabetical)
Theses
T1. MSc thesis, "Approximate Nash Equilibrium: A Direct Reduction", 2010.
T2. PhD thesis, "Robust Mechanism Design: Information and Computation", 2015.

Refereed papers in professional journals
J1. Matthias Englert, Anupam Gupta, Robert Krauthgamer, Harald Raecke, Inbal Talgam-Cohen and Kunal Talwar. Vertex Sparsifiers: New Results from Old Techniques. *SIAM Journal on Computing* 43(4), 1239-1262, 2014.

J2. Mukund Sundararajan and Inbal Talgam-Cohen. Prediction and Welfare in Ad Auctions. *Springer Theory of Computing Systems* 59(4) (Special Issue on Algorithmic Game Theory - by invitation), 664-682, 2016.
J3. Tim Roughgarden and Inbal Talgam-Cohen. Optimal and Robust Mechanism Design with Interdependent Values. *ACM Trans. Economics and Comput.* 4(3) (Special Issue on EC'13 - by invitation), 18:1-18:34, 2016.
J4. Paul Duetting, Tim Roughgarden and Inbal Talgam-Cohen. Modularity and Greed in Double Auctions. *Games and Economic Behavior* 105, 59-83, 2017.
J5. Uriel Feige, Michal Feldman and Inbal Talgam-Cohen. Approximate Modularity Revisited. *SIAM Journal on Computing* 49(1), 67–97, 2019.
J6. Tim Roughgarden, Inbal Talgam-Cohen and Qiqi Yan. Robust Auctions for Revenue via Enhanced Competition. *Operations Research* 68(4):1074-1094, 2019.
J7. Tim Roughgarden and Inbal Talgam-Cohen. Approximately Optimal Mechanism Design. *Annual Review of Economics* 11 (by invitation), 355-381, 2019.
J8. Moshe Babaioff, Noam Nisan and Inbal Talgam-Cohen. Competitive Equilibria with Indivisible Goods and Generic Budgets. *Mathematics of Operations Research* 46(1):28-60, 2021.
J9. Alon Eden, Michal Feldman, Ophir Friedler, Inbal Talgam-Cohen and S. Matthew Weinberg. A Simple and Approximately Optimal Mechanism for a Buyer with Complements. *Operations Research* 69(1):188-206, 2021.
J10. Paul Dütting, Tim Roughgarden and Inbal Talgam-Cohen. The Complexity of Contracts. *SIAM Journal on Computing* 50(1):211-254, 2021.

Accepted (or in press) papers

J11. Uriel Feige, Michal Feldman and Inbal Talgam-Cohen. Oblivious Rounding and the Integrality Gap. Forthcoming by invitation in *Theory of Computing* (TOC), Special Issue on APPROX-RANDOM'16, 2021.

Submitted papers

J12. Moshe Babaioff, Michal Feldman, Yannai Gonczarowski, Brendan Lucier and Inbal Talgam-Cohen. Correlation-Robust Pricing for a Unit-Demand Buyer. R&R, 2021.

Chapters in books

B1. Inbal Talgam-Cohen. Prior-Independent Auctions. Chapter 27 in *Beyond the Worst-Case Analysis of Algorithms*, Tim Roughgarden (ed.), Cambridge University Press, 2020.

Refereed papers in conference proceedings (conferences are the main publication outlet in computer science)

C1. Uriel Feige and Inbal Talgam-Cohen. A Direct Reduction from *k*-Player to 2-Player Approximate Nash Equilibrium. *International Symposium on Algorithmic Game Theory (SAGT)*, Springer, 138-149. Athens, Greece, October 2010.
C2. Matthias Englert, Anupam Gupta, Robert Krauthgamer, Harald Raecke, Inbal Talgam-Cohen and Kunal Talwar. Vertex Sparsifiers: New Results from Old Techniques. *International Workshop on Approximation Algorithms (APPROX)*, Springer, 152-165. Barcelona, Spain, September 2010.
C3. Tim Roughgarden, Inbal Talgam-Cohen and Qiqi Yan. Supply-Limiting Mechanisms. *ACM Conference on Economics and Computation (EC)*, 844-861. Valencia, Spain, June 2012.

C4. Hu Fu, Patrick Jordan, Mohammad Mahdian, Uri Nadav, Inbal Talgam-Cohen and Sergei Vassilvitskii. Ad Auctions with Data. *International Symposium on Algorithmic Game Theory (SAGT)*, Springer, 168-179. Barcelona, Spain, October 2012.

C5. Tim Roughgarden and Inbal Talgam-Cohen. Optimal and Robust Mechanism Design with Interdependent Values. *ACM Conference on Economics and Computation (EC)*, 767-784. Philadelphia, PA, USA, June 2013.

C6. Mukund Sundararajan and Inbal Talgam-Cohen. Prediction and Welfare in Ad Auctions. *International Symposium on Algorithmic Game Theory (SAGT)*, Springer, 267-278. Patra, Greece, October 2014.

C7. Paul Duetting, Tim Roughgarden and Inbal Talgam-Cohen. Modularity and Greed in Double Auctions. *ACM Conference on Economics and Computation (EC)*, 241-258. Stanford, CA, USA, June 2014.

C8. Tim Roughgarden and Inbal Talgam-Cohen. Why Prices Need Algorithms. *ACM Conference on Economics and Computation (EC)*, 19-36. Portland, OR, USA, June 2015.

C9. Shahar Dobzinski, Michal Feldman, Inbal Talgam-Cohen and Omri Weinstein. Welfare and Revenue Guarantees for Competitive Bundling Equilibrium. *Conference on Web and Internet Economics (WINE)*, Springer, 300-313. Amsterdam, The Netherlands, December 2015.

C10. Uriel Feige, Michal Feldman and Inbal Talgam-Cohen. Oblivious Rounding and the Integrality Gap. *International Workshop on Approximation Algorithms (APPROX)*, Dagstuhl, 8:1-8:23. Paris, France, September 2016.

C11. Uriel Feige, Michal Feldman and Inbal Talgam-Cohen. Approximate Modularity Revisited. *ACM Symposium on the Theory of Computing (STOC)*, 1028-1041. Montreal, Canada, June 2017.

C12. Alon Eden, Michal Feldman, Ophir Friedler, Inbal Talgam-Cohen and S. Matthew Weinberg. The Competition Complexity of Auctions: A Bulow-Klemperer Result for Multi-Dimensional Bidders. *ACM Conference on Economics and Computation (EC)*, 343. Cambridge, MA, USA, June 2017.

C13. Alon Eden, Michal Feldman, Ophir Friedler, Inbal Talgam-Cohen and S. Matthew Weinberg. A Simple and Approximately Optimal Mechanism for a Buyer with Complements. *ACM Conference on Economics and Computation (EC)*, 323. Cambridge, MA, USA, June 2017.

C14. Tim Roughgarden, Inbal Talgam-Cohen and Jan Vondrák. When Are Welfare Guarantees Robust? *International Workshop on Approximation Algorithms (APPROX)*, Dagstuhl, 22:1-22:23. Berkeley, CA, USA, August 2017.

C15. Moshe Babaioff, Noam Nisan and Inbal Talgam-Cohen. Fair Allocation through Competitive Equilibrium from Generic Incomes. *ACM Conference on Fairness, Accountability and Transparency (FAT*)*, 180. Atlanta, GA, USA, January 2019.

C16. Paul Duetting, Tim Roughgarden and Inbal Talgam-Cohen. Simple versus Optimal Contracts. *ACM Conference on Economics and Computation (EC)*, 369-387. Phoenix, AZ, USA, June 2019.

C17. Tomer Ezra, Michal Feldman, Eric Neyman, Inbal Talgam-Cohen and S. Matthew Weinberg. Settling the Communication Complexity of Combinatorial Auctions with Two Subadditive Buyers. *IEEE Symposium on Foundations of Computer Science (FOCS)*, 249-272. Baltimore, MD, USA, November 2019.

C18. Paul Duetting, Tim Roughgarden and Inbal Talgam-Cohen. The Complexity of Contracts. *ACM-SIAM Symposium on Discrete Algorithms (SODA)*, 2688-2707. Salt Lake City, UT, USA, January 2020.

C19. Tal Alon, Magdalen R. C. Dobson, Ariel Procaccia, Inbal Talgam-Cohen and Jamie Tucker-Foltz. Multiagent Evaluation Mechanisms. *AAAI Conference on Artificial Intelligence (AAAI)*, selected for oral presentation (top 5%), 1774-1781. New York, NY, USA, February 2020.

C20. Moshe Babaioff, Michal Feldman, Yannai Gonczarowski, Brendan Lucier and Inbal Talgam-Cohen. Correlation-Robust Pricing for a Unit-Demand Buyer. *ACM Conference on Economics and Computation (EC)*. Virtual conference, July 2020.

C21. Alon Eden, Michal Feldman, Inbal Talgam-Cohen and Ori Zviran. PoA of Simple Auctions with Interdependent Values. *AAAI Conference on Artificial Intelligence (AAAI)*. Virtual conference, February 2021.

C22. Yakov Babichenko, Inbal Talgam-Cohen and Konstantin Zabarnyi. Bayesian Persuasion under Ex Ante and Ex Post Constraints. *AAAI Conference on Artificial Intelligence (AAAI)*. Virtual conference, February 2021.

C23. Tal Alon, Ron Lavi, Elisheva Shamash and Inbal Talgam-Cohen. Incomplete Information VCG Contracts for Common Agency. *ACM Conference on Economics and Computation (EC)*. Budapest, Hungary, July 2021.

C24. Yakov Babichenko, Inbal Talgam-Cohen, Haifeng Xu and Konstantin Zabarnyi. Regret-Minimizing Bayesian Persuasion. *ACM Conference on Economics and Computation (EC)*. Budapest, Hungary, July 2021.

C25. Tal Alon, Paul Dütting and Inbal Talgam-Cohen. Contracts with Private Cost per Unit-of-Effort. *ACM Conference on Economics and Computation (EC)*. Budapest, Hungary, July 2021.

C26. Ganesh Ghalme, Vineet Nair, Itay Eilat, Inbal Talgam-Cohen and Nir Rosenfeld. Strategic Classification in the Dark. *International Conference on Machine Learning (ICML)*. Vienna, Austria, July 2021.

C27. Ameer Amer and Inbal Talgam-Cohen. Auctions with Interdependence and SOS: Improved Approximation. *International Symposium on Algorithmic Game Theory (SAGT)*, Aarhus, Denmark, September 2021.

C28. Yakov Babichenko, Inbal Talgam-Cohen, Haifeng Xu and Konstantin Zabarnyi. Multi-Channel Bayesian Persuasion. *Innovations in Theoretical Computer Science Conference (ITCS)*. Virtual, January 2022.

Research reports and other publications

O1. Hu Fu, Patrick R. Jordan, Mohammad Mahdian, Uri Nadav, Inbal Talgam-Cohen and Sergei Vassilvitskii. Ad Auctions with Data. IEEE INFOCOM Workshops, 184-189. Orlando, FL, USA, March 2012.

O2. Tim Roughgarden and Inbal Talgam-Cohen. Why Prices Need Algorithms. *ACM SIGecom Exchanges* 14(2), 35-40, 2015.

O3. Moshe Babaioff, Noam Nisan and Inbal Talgam-Cohen. Competitive Equilibrium with Generic Budgets: Beyond Additive. *arXiv* 1911.09992, 2019.

O4. Niva Elkin-Koren, Michal Feldman, Shafi Goldwasser and Inbal Talgam-Cohen. Organizers' Report: Algorithm Design, Law, and Policy Virtual Kick-Off. *Simons Institute Newsletter*, August 2020.

O5. Yotam Gafni, Xin Huang, Ron Lavi and Inbal Talgam-Cohen. Unified Fair Allocation of Goods and Chores via Copies. *Workshop on Computational Social Choice (COMSOC)*. Virtual, June 2021.

16. CONFERENCES

Plenary, keynote or invited talks (after 2017, excluding departmental seminars)

1. "Incomplete Information VCG Contracts", Israel Algorithmic Game Theory Seminar, virtual, June 8, 2021.
2. Plenary tutorial, "Auctions with Correlated and Interdependent Values: Contributions of Wilson and Milgrom", Inaugural SIGecom Winter Meeting, Virtual, February 25, 2021.
3. Keynote, "Beyond Auction Theory: Economic Models Relevant to Computational Advertising", AdKDD Workshop in conjunction with KDD, virtual, August 23, 2020.
4. "Contract Theory: An Algorithmic Approach", Israel AGT Day, Weizmann Institute, Rehovot, Israel, February 20, 2020.
5. "Beyond Worst-Case Analysis in AGT", Workshop in Honor of Uri Feige, Weizmann Institute, Rehovot, Israel, January 14, 2020.
6. "BWCA in Algorithmic Game Theory: Recent Developments", FOCS'19 Beyond Worst-Case Analysis of Algorithms Workshop, Baltimore, ML, USA, November 9, 2019.
7. "The Complexity of Contracts", MAPLE (Markets, Algorithms, Prediction and Learning) Workshop, Milan, Italy, September 19, 2019.
8. "Algorithms and Law", Beyond Differential Privacy Workshop, Simons Institute, Berkeley, CA, USA, May 7, 2019.
9. "Simple vs. Optimal Contracts", STOCA Workshop, Google, Mountain View, CA, USA, February 5, 2019.
10. "Approximate Modularity Revisited", Algorithmic Aspects of Social Choice and Auction Design Workshop, St. Petersbourg, Russia, August 10, 2018.
11. "Approximate Modularity Revisited", Highlights of Algorithms (HALG) Conference, Amsterdam, The Netherlands, June 6, 2018.
12. "Pricing Equilibrium – Inherently Trustworthy, Approximately Fair", Workshop on Trustworthy Algorithmic Decision Making, Pentagon City, VA, USA, December 4, 2017.
13. "Why Prices Need Algorithms", invited talk, STOC'17, Montreal, Canada, June 20, 2017 (given by co-author due to maternity leave).

Participation in organizing conferences

1. "Algorithms, Law and Policy" workshop, Simons Institute, Berkeley, CA, USA, summer 2022 (planned). Co-organizer with Niva Elkin-Koren, Michal Feldman and Shafi Goldwasser.
2. "Algorithms, Law and Policy" kick-off event, Simons Institute, Berkeley, CA, USA, July 20-21, 2020. Co-organizer with Niva Elkin-Koren, Michal Feldman and Shafi Goldwasser.
3. "Algorithms and Law" seminar, Dagstuhl, Germany, originally planned for July 18-23, 2021, cancelled due to COVID-19. Co-organizer with Josef Drexl, Niva Elkin-Koren, Michal Feldman and Shafi Goldwasser.
4. "Contracts as a New Frontier for AGT" tutorial, EC'19, Phoenix, AZ, USA, June 24, 2019. Co-organizer with Paul Duetting.
5. "Gross Substitutes: Combinatorial Structure and Algorithms" tutorial, EC'18, Ithaca, NY, USA, June 18, 2018. Co-organizer with Renato Paes-Leme.
6. "Algorithmic/Computational Game Theory" invited session, IFORS'18, Québec City, Canada, July 17, 2017. Organizer.