

## **Alexey Kushnir**

November 2023

Associate Professor of Economics  
Tepper School of Business  
Carnegie Mellon University

### **EDUCATION**

- 2010            PhD in Economics, The Pennsylvania State University, State College, PA, “Preference Signaling in Matching Markets” (Committee: Marek Pycia, co-advisor; Vijay Krishna, Co-advisor; Kalyan Chatterjee; Tymofiy Mylovanov; Gary Bolton)
- 2006            Master of Arts in Economics (Cum Laude), New Economic School, Moscow, Russia
- 2006            Master of Science in Physics and Mathematics (with Honors), Moscow Institute of Physics and Technology, Moscow, Russia
- 2004            Bachelor of Science in Physics and Mathematics (with Honors), Moscow Institute of Physics and Technology, Moscow, Russia

### **POSITIONS HELD**

- 2020-            Associate Professor of Economics (without tenure), Tepper School of Business, Carnegie Mellon University
- 2014-20        Assistant Professor of Economics, Tepper School of Business, Carnegie Mellon University
- 2010-14        Senior Research Associate, Department of Economics, University of Zürich, Blumlisalpstrasse 10, Zurich, 8006, Switzerland

### **OTHER POSITIONS**

- September 2023-            Affiliated Member, Institute for Complex Social Dynamics at Carnegie Mellon University
- August-December 2018        Visiting scholar, New Economic School and Higher School of Economics, Moscow, Russia
- October 2013                Visiting scholar, Northwestern University, Northwestern Center for Economic Theory
- March-May 2010                Visiting scholar, Harvard Business School
- August-September 2009        Visiting scholar, Boston College
- May-August 2007                Economist, Center of Economic and Financial Research, Moscow, Russia

## TEACHING: COURSES TAUGHT AND RATINGS (at Carnegie Mellon)

### Courses Taught and Ratings (at Carnegie Mellon)

Course Number	Course Title	Year	FCE Instructor Rating	FCE Course Rating	Number of Students Enrolled	Number of Responses
73-347	Game Theory Applic. for Economics and Business (MBA)	22-23	4.64	4.73	25	11
75-915	Managing through Incentives	22-23	4.21	4.16	35	18
73-347	Game Theory Applic. for Economics and Business (MBA)	21-22	4.0	4.0	30	14
75-915A	Managing through Incentives	21-22	5.0	5.0	15	7
73-341	Within the Firm: Managing through Incentives	21-22	4.67	4.67	15	6
73-315	Market Design	20-21	3.86	3.86	12	7
73-341	Within the Firm: Managing through Incentives	20-21	4.25	4.25	6	4
73-315	Market Design	19-20	4.56	4.67	22	9
73-341	Within the Firm: Managing through Incentives	19-20	4.38	4.5	17	8
73-341	Within the Firm: Managing through Incentives	18-19	4.2	4.2	19	10
73-102 1	Principles of Microecon.	17-18	4.26	4.07	221	122
73-102 2	Principles of Microecon.	17-18	3.94	3.89	188	116
73-100 1	Principles of Economics	16-17	3.90	3.80	122	56
73-100 2	Principles of Economics	16-17	3.98	3.76	99	43
73-341	Within the Firm: Managing through Incentives	16-17	4.88	4.88	15	8
73-100 1	Principles of Economics	15-16	3.68	3.68	136	70
73-100 2	Principles of Economics	15-16	3.95	4.05	109	61
73-341	Within the Firm: Managing through Incentives	15-16	4.27	4.20	20	15
73-100 1	Principles of Economics	14-15	3.55	3.64	126	61
73-100 1	Principles of Economics	14-15	3.54	3.44	117	45
73-341	Within the Firm: Managing through Incentives	14-15	3.63	3.50	20	8

## **STUDENT SUPERVISION**

### **Undergraduate Student Supervision (at Carnegie Mellon)**

Daniel Kornbluth, Co-author, Adviser

Honor Thesis: “Undergraduate Course Allocation through Competitive Markets” (Spring, 2023)

Currently: PhD student at Harvard University, Department of Economics

Angela Fan, Co-author, Supervisor

Research project: “Decentralized Workforce: Fundamental Drivers and Engagement in the New Workplace” (Summer, 2022)

Currently: PhD student at UCLA, Anderson School of Management

Eric Coolbaugh, Co-adviser

Honor Thesis: “An Examination of Region Risk Premia for Automotive Securitization Participants” (Spring 2017)

Kamyar Ghiam, Supervisor

Research project: “Optimal Income Taxation” (Spring 2017)

### **Doctoral Student Supervision (at Carnegie Mellon)**

James Michelson, Adviser

PhD Thesis: “Optimal Multi-Dimensional Auctions: Conjectures and Simulations” (ongoing)

Arnav Sood (Summer Paper Reader) (Tepper School of Business) (2022)

Shuya Li, Summer Paper Reader (2016, 2017), Thesis Committee Member

PhD Thesis: “Incentives, Information, and Dynamic Games: Applications in Corporations and Schools” (Spring, 2022)

### **Undergraduate Student Supervision (at other Universities)**

Simon Agapov, Thesis Committee Member

Honors Thesis: “The equivalence between Bayesian and dominant strategy implementation in non-linear settings” (New Economic School, Fall 2018)

### **Master Student Supervision (at other Universities)**

Aleksei Beliaev, Thesis Committee Member

Master Thesis: “Justifiable Contracts under Introspective Unawareness” (New Economic School, 2020)

### **Doctoral Student Supervision (at other Universities)**

Pastrian Contador, Thesis Committee Member

PhD Thesis: “Matching and Information Design in Marketplaces” (University of Pittsburgh, ongoing)

Chen Yufei, Thesis Committee Member,  
PhD Thesis: “Three Essays on Microeconomic Theory” (University of Pittsburgh, 2023)

Zaruhi Hakobyan, Thesis Committee Member,  
PhD Thesis: “Essays on Networks, Information Economics, and Dynamic Games of Populism and Conflict” (Higher School of Economics/University of Luxemburg, 2020)

Shuo Liu, Co-author, Recommendation Letter Writer  
PhD Thesis: “Information, Incentives and Institutions” (University of Zurich, 2019)  
Currently: Assistant Professor, Guanghua School of Management

Thomas Wüthrich, Supervisor  
Research project: Topics in Market and Mechanism Design (University of Zurich, 2012)

Alexandru Nichifor, Thesis Committee Member,  
PhD Thesis: “Essays in Matching with Money and Networks” (Maastricht University, 2011)  
Currently: Associate Professor, University of Melbourne

## **OTHER EDUCATIONAL CONTRIBUTIONS**

### **New Courses**

73 341 Within the Firm: Managing through Incentives (Designed, developed, and taught)

75 915 Managing through Incentives (Designed, developed, and taught)

### **Development Activities**

Faculty Success Program, Carnegie Mellon University, 2023

AEA Continued Education, 2018, 2019, 2021, 2022

HBP Case Method Teaching Seminar, Pittsburgh, 2015

Online Instructor Certificate, the Pennsylvania State University, 2010

### **Awards and Honors**

Richard M. Cyert Award for Excellence in Teaching, Carnegie Mellon University, 2018

Higher School of Economics Best Teacher Award, 2018

The Pennsylvania State University, Department of Economics, Outstanding Undergraduate Instructor Award, 2009

## **Teaching Experience**

Carnegie Mellon University, Tepper School of Business

73 100 Principle of Economics (2 sections), 3 semesters

73 102 Principle of Microeconomics (2 sections), 1 semester

73-315 Market Design, 2 semesters

73 341 Within the Firm: Managing through Incentives, 8 semesters.

73 347 Game Theory Application for Economics and Business, 2 semesters

47 817 Microeconomics II, 4 minis

75 915 Managing through Incentives, 2 minis

University of Zurich

Economic Foundations of Finance, 1 semester

Mechanism design, 2 semesters

Microeconomics for Research Students, 2 semesters

Pennsylvania State University

Introductory Microeconomic Analysis and Policy, 1 semester

Introductory Econometrics, 1 semester

New Economic School/Higher School of Economics

Machine Learning, 1 semester

Microeconomics (Market and Mechanism design), 1 semester

## **PUBLICATIONS**

### **Articles in refereed journals:**

1. Kushnir, A. (2013). Harmful signaling in matching markets. *Games and Economic Behavior*, 80, 209–218.
2. Coles, P., Kushnir A. & Niederle, M. (2013). Preference signaling in matching markets. *American Economic Journal: Microeconomics*, 5(2), 99–134.
3. Gershkov, A., Goeree, J. K., Kushnir, A., Moldovanu, B., & Shi, X. (2013). On the equivalence of Bayesian and dominant strategy implementation. *Econometrica*, 81(1), 197–220.
4. Kushnir, A. (2015). On sufficiency of dominant strategy implementation in environments with correlated types. *Economics Letters*, 133, 4–6.
5. Goeree, J. & Kushnir, A. (2016). Reduced Form Implementation for Environments with Value Interdependencies, *Games and Economic Behavior*, 99, 250–256.
6. Kushnir, A. & Liu, S. (2019). On the equivalence of Bayesian and dominant strategy implementation for environments with non-linear utilities. *Economic Theory*, 1-28.
7. Kushnir, A. & Liu, S. (2020). On linear transformations of intersections. *Set-Valued and Variational Analysis: Theory and Applications*, 28, 475-489.
8. Kushnir, A., Tarasov, A., and Zubrickas, R. (2021). On equilibrium in monopolistic competition with endogenous labor. *Economics Letters*, 201, 109774.
9. Kushnir, A. & Lokutsievskiy, L. (2021). When is a monotone function cyclically monotone?. *Theoretical Economics*, 16(3), 853-879.
10. Goeree, J. & Kushnir, A. (2023). A geometric approach to mechanism design. *Journal of Political Economy Microeconomics*, 1(2), 321-347.
11. Krishnamoorthy, V., & Kushnir, A. (forthcoming) A Simple Characterization of Supply Correspondences, *Mathematics of Operations Research*.

## **NON-PUBLISHED PAPERS**

### **Completed Working Papers:**

12. Kornbluth, D. & Kushnir, A. (2023). Undergraduate course allocation through competitive markets. *R&R American Economic Review*.
13. Kushnir, A. & Zurbrickas, R. (2023). Optimal labor income taxation with the dividend effect. *R&R Economic Theory*.

### **Work in Progress:**

14. Kushnir, A. & Shourideh, A. (2023). Optimal mechanisms in multi-dimensional environments.
15. Kushnir, A. & Michelson, J. (2023). Characterizing multi-dimensional auctions through simulations.

### **Other research contributions:**

16. Schweyer, A., Fan, A., Ford, E., Kang, J. & Kushnir, A. (2022) Decentralized Workforce: Fundamental Drivers and Engagement in the New Workplace, Incentives Research Foundation report.
17. Kushnir, A. & Lokutsievsky, L. (2021). Implementation on multiple and multi-dimensional single-peaked domains. Working paper.
18. Kushnir, A. & Nichifor, A. (2015). Targeted vs. collective posting on social platforms. Working paper.
19. Kushnir, A. & Xiao, J. (2009). Solutions Manual for Vijay Krishna's Auction Theory Book (2nd edition).
20. Fedukin, I., Kushnir, A. & Zhuravskaya, E. (2007). Orphans and Children Deprived From Parental Care. CEFIR working papers (in Russian).
21. Kushnir, A. (2006). Collective Action Problem in Revolutions, Best Student Papers NES (in Russian).

### **Commentary in Newspapers and Magazines:**

1. The Tartan: Richard Thaler Receives Nobel Memorial Prize in Economics, Oct 15, 2017, [Link](#)

**Google Citations:** 435

## **PROFESSIONAL ACTIVITIES**

### **Invited talks at conferences**

“Undergraduate Course Allocation through Competitive Markets,” Seminar in Economic Theory, Warwick, UK (September 2022)

“Undergraduate Course Allocation through Competitive Markets,” Information Economics Workshop, Moscow, Russia (December 2022)

“When is a Monotone Function Cyclically Monotone?”, SSES Annual Congress, Switzerland (June 2021)

“On the Equivalence of Weak- and Cyclic-Monotonicity”, SEA Conference, United States (November 2019)

“Monotonicity and Implementation: Beyond Convex Domains,” Mechanism Design Conference, Vanderbilt University, (September 2016)

“The Geometric Approach to Mechanism Design,” 2014 Cowles Foundation Theory Conference, Yale University (June 2014)

“On the Equivalence of Bayesian and Dominant Strategy Implementation,” York Economic Theory Workshop (March 2013)

“On the Equivalence of Bayesian and Dominant Strategy Implementation,” Maastricht University “Recent Developments in Market Design” Workshop (September 2011)

### **Conference talks (peer-reviewed)**

“Undergraduate Course Allocation through Competitive Markets,” 6th Workshop on Preferences under Matching, Vienna, Australia, (August 2022)

### **Conference (session-organizer)**

Society for the Advancement of Economic Theory 2021, 2022, 2023

### **Other conference talks (not invited, not reviewed)**

2021-2024: North American Winter Meeting of the Econometric Society, LACEA LAMES Annual Meeting, The NBER New Directions in Market Design Conference, Matching in Practice (Lausanne), EEA-ESEM, North American Summer Meeting of the Econometric Society, Conference on Mechanism Design and Institution Design, Stony Brook Conference, World Congress of the Game Theory Society, European Winter Meetings of the Econometric Society

2016-2020: CMID conference, ASSA Meetings, SEA Conference, Pennsylvania Economic Theory Conference, 29th International Conference on Game Theory in Stony Brook, IX Moscow International Conference on Operations Research, CIREQ Montréal Microeconomic Theory Conference, Decentralization Conference at Brown, North American Econometric Society Meeting, European Econometric Society Meeting

2011-2015: The Cowles Foundation conference, North American Econometric Society Meetings, World Congress of the Game Theory Society, European Econometric Society Meeting, NES 20th Anniversary Conference, Maastricht University Market Design Workshop, Matching in Practice (Berlin), SAET, UECE Lisbon Meeting, International Conference European Meeting on Game Theory

2005-10: Fifth PhD Presentation Meeting, ADRES Conference (Lyon), 14th Coalition Theory Network Workshop, Midwest Economic Theory Meeting, Society of Economic Design, SUNY Stony Brook, XIX New Economic School Conference, XLVIII Moscow Institute of Physics and Technology Conference



### **Seminars at academic institutions**

2021-2024: Yale University, University of Michigan, University of Southern California (scheduled), Institute for Complex Social Dynamics at CMU (scheduled), New Economic School, Higher School of Economics, International College of Economics and Finance, Moscow School of Management Skolkovo

2016-2020: Princeton University, Harvard/MIT, Berkeley, New York University, Duke/University of North Carolina, Vanderbilt University, Copenhagen Business School, Johns Hopkins University, University of Pittsburgh, Frankfurt School of Finance and Management, University of Bern, University of Cologne, University of Lausanne, University of Zurich, Tsinghua University, New Economic School, Higher School of Economics (Moscow), Nazarbaev University, Yandex Research Seminar, Moscow State University (Math Department)

2011-2015: Northwestern, Caltech, Carnegie Mellon University, University of Michigan, University of Wisconsin-Madison, The Penn State University, University of Rochester, UC Davis, Ohio State University, University of Pittsburgh, HEC Paris, Bocconi University, University College London, Paris School of Economics, University of Toronto, Ecole Polytechnique, University of Western Ontario, University of York, University of St. Andrews, University of Montreal, University of Saint-Galen, Humboldt University, Sciences Po, New Economic School, Higher School of Economics, University of Leicester

2005-10: UCLA, Boston College, University of Zurich, University of Autonomia, New Economic School, Higher School of Economics, Max Plank Institute (Bonn)

### **Membership in Professional Societies, Honorary Fraternities**

Member, American Economic Association,  
Member, Econometric Society  
Member, Society for the Advancement of Economic Theory  
Member, Society for Social Choice and Welfare  
Member, Royal Economic Society

### **Awards, Prizes, Honors**

Foscolo Fellowship, €120000 for 2 years, declined due to Carnegie Mellon position (2014)  
European Science Days, 2nd prize (€1500) for paper “Harmful Signaling in Matching Markets” (2010)  
New Economic School, Best Student Paper Award (2006)

### **EDITORIAL ROLES**

#### **Referee service**

American Economic Review, Econometrica, Review of Economic Studies, Quarterly Journal of Economics, Journal of Economic Theory, Theoretical Economics, American Economic Journal: Micro, Games and Economic Behavior, Economic Theory, Journal of European Economic Association, International Economic Review, Management Science, Operations Research, Mathematics of Operations Research, Quantitative Economics, International Journal of Game Theory, Journal of Economic Behavior & Organization, Journal of Mathematical Economics, Social Choice and Welfare, Economics Letters, European Economic Review, Journal of Economics & Management Strategy, Scandinavian Journal of Economics, Southern Economic Journal, Mathematical Social Sciences, Review of Economic Design, The B.E. Journal of Theoretical Economics, Elsevier

## **SERVICE**

### **Tepper School of Business**

Organizer, Economic theory seminar (2016-2017, 2020-2022)  
Local coordinator, Pennsylvania economic theory conference (2021-2023)  
Member, Economics curriculum review committee (2022-2023)  
Member, Undergraduate economics educational affairs committee (2019)  
Member, Tier I committee for tenured/untentured/teaching appointments (2014-23), 10 times  
Member, Economics faculty recruiting committee (2015-2016, 2017-2018)  
Attendee, Meeting candidates, Business Technologies faculty recruiting (2017, 2019, 2022)  
Attendee, Graduation, almost every year  
Speaker, Tepper webinar – Intelligent Future Series (2022)  
Speaker, PT MBA Access Weekend (2022)  
Alumni and student events participation (2014-2023), several times  
Student Event – Presentation, Advice for PhD students (2015)  
Student Event – Presentation, Basecamp (2020)  
Student Event – Presentation, Economics colloquium (2021-2022)