# **Alexey Kushnir**

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#### **Personal information**

Born in Moscow, Russia Male (he/him), married,

one daughter

US and Russian citizen

# 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

## **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*.
- 12. Kushnir, A. & Zurbrickas, R. (2023). Optimal labor income taxation with the dividend effect. *Economic Theory, accepted subject to a final revision.*

# **Completed Working Papers:**

13. Kornbluth, D. & Kushnir, A. (2023). Undergraduate course allocation through competitive markets. *R&R American Economic Review*.

#### **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:**

22. The Tartan: Richard Thaler Receives Nobel Memorial Prize in Economics, Oct 15, 2017, Link

# **Google Citations:** 445

## **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

## PROFESSIONAL ACTIVITIES

# **Invited talks at conferences**

- "Undergraduate Course Allocation through Competitive Markets," Conference on Mechanism and Institution Design, Budapest, Hungary (July 2024, scheduled)
- "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, USA (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

# **Seminars at academic institutions**

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

2016-2020: Harvard/MIT, Princeton University, 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 Autonoma, New Economic School, Higher School of Economics, Max Plank Institute (Bonn)

# Other conference talks (not invited, not reviewed)

2021-2024: Canadian Economic Theory Conference (scheduled), CTN workshop (scheduled), Social Choice and Welfare (scheduled), SING 19 (scheduled), Game Theory Congress (scheduled), Pennsylvania Economic Theory Conference (scheduled), 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

## **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

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

# **Teaching Experience**

Carnegie Mellon University, Tepper School of Business

75 915 (MBA) Managing though Incentives, 3 minis

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 though Incentives, 8 semesters.

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

47 817 Microeconomics II, 4 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 Eccnomics

Machine Learning, 1 semester

Microeconomics (Market and Mechanism design), 1 semester

# **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

<u>Awards and Honors</u> 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

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

Course Course	N/	FCE Instructor	FCE Course	Number of Students	Number of
Number Title	Year	Rating	Rating	Enrolled	Responses
(MBA) 75-915 Managing through	22.24	4.0	4.0	1.6	10
Incentives	23-24	4.9	4.9	16	12
73-347 Game Theory Applic.	22.24	4.44	4.5	2.5	1.6
for Economics and Business	23-24	4.44	4.5	35	16
(MBA) 75-915 Managing through	22.22	4.21	4.16	2.5	10
Incentives	22-23	4.21	4.16	35	18
73-347 Game Theory Applic.	22.22	4.64	4.50	2.5	1.1
for Economics and Business	22-23	4.64	4.73	25	11
(MBA) 75-915A Managing through					_
Incentives	21-22	5.0	5.0	15	7
73-347 Game Theory Applic.				- 0	
for Economics and Business	21-22	4.0	4.0	30	14
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

# **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/untenured/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)