Fedor Sandomirskiy (legal spelling: Sandomirskii)

Department of Economics fsandom 277 Julis Romo Rabinowitz Building http	1 (626) 567-9223 i@princeton.edu os://fedors.info/ e Scholar profile
microeconomic theory, information economics, mechanism design, fair division, nomics, optimal transportation and majorization methods	algorithmic eco-
— member of Mechanism Design for Data Science group	2025 2023-2024 2021-2023 2018-2021
— senior researcher (remote since 2018) at International Lab. of Game Theory — head of the laboratory St.Petersburg State University, Russia — researcher at Chebyshev Laboratory (Dept. of Mathematics)	2015-2022 2017-2018 2012-2015
Central Economics and Mathematics Institute, Russian Academy of Sciences — Ph.D. (Candidate of Sciences) in Mathematical Methods of Economics St.Petersburg State University — M.Sc. in Mathematical Physics — B.Sc. in Mathematical Physics	2014 2011 2009
"Extreme Equilibria: The Benefits of Correlation" with Kirill Rudov and Leeat Yariv "Narrow Bracketing and Risk in Games" with Po Hyun Sung, Omer Tamuz, and Ben Wincelberg "Stable Matching as Trasnportation" with Federico Echenique, Joseph Root "Decomposable Stochastic Choice" with Omer Tamuz Reject&Resubmit in American Economic Review "On the origin of the Boltzmann distribution" with Omer Tamuz "Feasible Conditional Belief Distributions" with Itai Arieli and Yakov Babichenko "The geometry of consumer preference aggregation" with Philip Ushchev "Beckmann's approach to multi-item multi-bidder auctions" with Alexander V. Kolesnikov, Aleh Tsyvinski, and Alexander P. Zimin "Bayesian persuasion with mediators" with Itai Arieli and Yakov Babichenko "Efficiency in random resource allocation and social choice" with Federico Echenique, Joseph Root	
	Department of Economics 277 Julis Romo Rabinowitz Building Princeton, NJ 08544 Googl Microeconomic theory, information economics, mechanism design, fair division, a nomics, optimal transportation and majorization methods Princeton University, USA — Assistant Professor — Associate Research Scholar & Lecturer California Institute of Technology, USA — Linde Postdoctoral Fellow in Economics, PIMCO Fellow in Data Science Technion, Israel — postdoc at Game Theory group (Dept. of Industrial Engineering & Managem — member of Mechanism Design for Data Science group National Research University Higher School of Economics, Russia — senior researcher (remote since 2018) at International Lab. of Game Theory — head of the laboratory St.Petersburg State University, Russia — researcher at Chebyshev Laboratory (Dept. of Mathematics) Central Economics and Mathematics Institute, Russian Academy of Sciences — Ph.D. (Candidate of Sciences) in Mathematical Methods of Economics St.Petersburg State University — M.Sc. in Mathematical Physics — B.Sc. in Mathematical Physics "Extreme Equilibria: The Benefits of Correlation" with Kirill Rudov and Lecat Ya "Narrow Bracketing and Risk in Games" with Po Hyun Sung, Omer Tamuz, and E "Stable Matching as Trasuportation" with Federico Echenique, Joseph Root "Decomposable Stochastic Choice" with Omer Tamuz Reject&Resubmit in American Economic Review "On the origin of the Boltzmann distribution" with Omer Tamuz "Feasible Conditional Belief Distributions" with Itai Arieli and Yakov Babichenko "The geometry of consumer preference aggregation" with Philip Ushchev "Beckmann's approach to multi-item multi-bidder auctions" with Alexander V. F. Tsyvinski, and Alexander P. Zimin "Bayesian persuasion with mediators" with Itai Arieli and Yakov Babichenko

updated: February, 2025

Main
Publications

- "Private private information" with Kevin He and Omer Tamuz forthcoming in *Journal of Political Economy*
- "Feasible joint posterior beliefs" with Itai Arieli, Yakov Babichenko, and Omer Tamuz Journal of Political Economy, 2021, 129(9), EC'20 best paper award
- "Competitive division of a mixed manna" with Anna Bogomolnaia, Herve Moulin, Elena Yanovskaya Econometrica, 2017, 85(6):1847-1871
- "On the fair division of a random object" with Anna Bogomolnaia and Herve Moulin Management Science, 2022, 68(2):1174-1194
- "Fair division with minimal sharing" with Erel Segal-Halevi Operations Research, 2022, 70(3):1762-1782

OTHER JOURNAL PUBLICATIONS

- "Algorithms for competitive division of chores" with Simina Brânzei Mathematics of Operations Research, 2023
- "Feasible joint posterior beliefs through examples" with Itai Arieli, Yakov Babichenko, Omer Tamuz SIGecom Exchanges, 2021
- "Representative Committees of Peers" with Reshef Meir and Moshe Tennenholtz Journal of Artificial Intelligence Research, 2021, 71:401-429
- "A polynomial-time algorithm for computing a Pareto optimal and almost proportional allocation" with Haris Aziz and Herve Moulin

Operations Research Letters, 2020, 48(5):573-578

- "Dividing bads under additive utilities" with Anna Bogomolnaia, Herve Moulin, Elena Yanovskaya Social Choice and Welfare, 2019, 52(3):395-417
- "On repeated zero-sum games with incomplete information and asymptotically bounded values" Dynamic Games and Applications, 2018, 8(1):180-198
- "Repeated games of incomplete information with large sets of states" International Journal of Game Theory, 2014, 43(4):767-789
- "An exact renormalization formula for the Maryland model" with Alexander Fedotov Communications in Mathematical Physics, 2015, 334(2):1083-1099

REFEREED CONFERENCE PUBLICATIONS

- "Decomposable Stochastic Choice" with Omer Tamuz
 - ACM Conference on Economics and Computation (EC'24), 2024 (extended abstract)
- "Stable Matching as Trasnportation" with Federico Echenique, Joseph Root
- ACM Conference on Economics and Computation (EC'24), 2024 (extended abstract) "Private private information" with Kevin He and Omer Tamuz
- ACM Conference on Economics and Computation (EC'22), 2022 (extended abstract)
- "Persuasion as transportation" with Itai Arieli and Yakov Babichenko

 **ACM Conference on Economics and Computation (EC'22), 2022 (extended abstract)
- "Protecting the protected group" with Omer Ben-Porat and Moshe Tennenholtz
 The Thirty-Fifth AAAI Conference on Artificial Intelligence (AAAI-21), 2021
- "On social networks that support learning" with Itai Arieli and Rann Smorodinsky, ACM Conference on Economics and Computation (EC'21), 2021 (extended abstract)

TEACHING & ADVISING

Instructor

- "Mathematics for Economists" (ECO 500), Princeton

best instructor award (2023)

- "Statistics and Data Analysis for Economics" (ECO 202), Princeton

"Algorithmic Economics" (CS/SS/EC149), Caltech

developed from scratch intro to economic design for CS/math grads & undergrads

"Information in Games," Technion, co-taught with Rann Smorodinsky

"Introduction to Mechanism Design," HSE, co-taught with Alexander Nesterov

Probability, Calculus 1, Algebra 1, St.Petersburg State University

2023-2025

2024-2025

2022-2023

2020-2023

2020-2023

2020-2023

2020-2023

2020-2023

2020-2023

2020-2023

2020-2023

	Advisor, graduate — Martin Vaeth (committee member, Princeton 2025) — Zijian Tao (committee member, Caltech 2022), Alisa Maricheva & Yulia Ibragimova (M.Sc. theses, HSE 2018) Advisor, undergraduate — Won-Jae Chang & Lawrence Wang (Princeton 2024), Egor Kravchenko (St.Petersburg State University 2022), Yulia Ibragimova (HSE 2016)	5)
SERVICE	Referee — Journals: Econometrica, JPE, JET, TE, GEB, AEJ:micro, ET, SCW, MOR, EJOR, — Grants: German-Israeli Foundation, Israel Science Foundation Program committee member	TEAC
	 ACM Conference on Economics and Computation (EC); Area Chair in 2023, 2025 The 17th Conference on Web and Internet Economics (WINE) 	2019-2025 2021
	— Russian Game Theory Olympiad Organizer	2018-2021
	— weekly economic theory seminar at Princeton	2024-2025
	— session "Correlation and Incentives" at Stony Brook Conference	2024
	 Victoria Kreps Memorial Prize for young game theorists and economic theorists conference "New Directions in Social Choice in St.Petersburg," HSE 	2021
	— conference "Economic Design and Algorithms in St.Petersburg," HSE,	2019
	— school "Game Theory: Applications, Networks, Emotions," HSE	2010
	 conference "Algorithmic aspects of Social Choice and Auctions," HSE conference "Advances in Fair Division," HSE 	$2018 \\ 2017$
	— school "Fair Division: Between Economics, Mathematics and Computer Science," HS	
	— conference "Game Theory and Mechanism Design," HSE	2016
	— school "Computational Social Choice and Fair Division," HSE	
	— research seminar in economic theory, HSE	2015-2018
	Other service — Mentor, "Mentorship workshop," ACM Conference on Economics and Computation — multiple popular lectures on Game Theory and Economic Design	(EC) 2022 2015-2018
	for undergrads and gifted high-school students	
Grants	— Best instructor award, Princeton	2023
& Awards	— PIMCO Fellowship in Data Science, Linde Institute Fellowship in Economics	2022 - 2023
	— Best paper award at ACM Conference on Economics and Computation (EC'20)	2020
	— RFBR 19-01-00762 "Cardinal mechanisms for resource allocation"	2019-2021
	— Lady Davis Postdoctoral Fellowship, Technion	2018-2019
	 RFBR 16-01-00269 "Asymptotic problems of game theory" RFBR 13-01-00462 "Variability of beliefs in multi-stage interactions" 	2016-2018 2013-2015
	— B.L. Ovsievich prize in economics	2013-2013
	V. Deych prize for B.Sc. thesis in mathematical physics	2009
Invited Seminars	— MIT-Harvard, upcoming: Madison, Rochester, Rutgers	2025
	— NYU, Emory, Penn State	2024
	— Caltech, Princeton, Berkeley, Toronto, Essex, UCL, Duke, Brown, Drexel, Western	2023
	— Bonn, Northwestern, CMU BS, UCSD, Edinburgh, HUJI Econ-CS,	2022
	Technion IE&M, Purdue CS — PSE, Joint Hong Kong Theory Seminar, Caltech Econ., Caltech CMS,	2021
	Caltech CMI, HSE Econ. — Cornell Econ., TAU & HUJI, HSE Math, Technion & Bar-Ilan	2020
	— Cornell Econ., TAC & HUJI, HSE Math, Technion & Bar-han — Stanford MS&E, Caltech Econ., Bar-llan Econ., HUJI Econ-CS, Technion IE&M,	2020
	TAU CS, TAU Math	2010
	— Rochester Econ., Technion IE&M	2018
	— HUJI Econ-CS	2017
	— HUJI Econ	2013

Conferences	— ASSA Annual meeting	2025
	— Wharton Theory, Cowles Summer, BFI Theory, EC'24, Stony Brook	2024
	— EC'22, INFORMS Annual Meeting, Stony Brook, INFORMS Market Design, LA Theory	2022
	— EC'21, LA Theory workshop	2021
	— EC'20 (best paper award), CMID20, Dynamics and Information Workshop TAU	2020
	— "De Aequa Divisione" at LUISS	2019
	— 22nd CTN Workshop, MATCH UP, "Imperfect Markets" at NES	2017
	— Congress of the GT Society, COMSOC 2016	2016
	- MAGTA	2014
	— 5th Israeli GT conference	2013
	— Games and Strategy in Paris	2012