# Fedor Sandomirskiy (legal spelling: Sandomirskii)

| CONTACT INFORMATION | Princeton University | +1 (626) 567-9223 |
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| | Department of Economics | fsandomi@princeton.edu |
| | 277 Julis Romo Rabinowitz Building | https://fedors.info/ |
| | Princeton, NJ 08544 | Google Scholar profile |

**RESEARCH INTERESTS**

microeconomic theory, information economics, mechanism design, fair division, algorithmic economics, optimal transportation and majorization methods

**ACADEMIC POSITIONS**

Princeton University, USA
— Assistant Professor — 2025- . . .
— Associate Research Scholar & Lecturer — 2023-2024
California Institute of Technology, USA — 2021-2023
— Linde Postdoctoral Fellow in Economics, PIMCO Fellow in Data Science
Technion, Israel — 2018-2021
— postdoc at Game Theory group (Dept. of Industrial Engineering & Management)
— 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 — 2015-2022
— head of the laboratory — 2017-2018
St.Petersburg State University, Russia — 2012-2015
— researcher at Chebyshev Laboratory (Dept. of Mathematics)

**EDUCATION**

Central Economics and Mathematics Institute, Russian Academy of Sciences
— Ph.D. (Candidate of Sciences) in Mathematical Methods of Economics — 2014
St.Petersburg State University
— M.Sc. in Mathematical Physics — 2011
— B.Sc. in Mathematical Physics — 2009

**WORKING PAPERS**

"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

"Private private information" with Kevin He and Omer Tamuz
forthcoming in *Journal of Political Economy*

"The geometry of consumer preference aggregation" with Philip Ushchev

"Feasible Conditional Belief Distributions" with Itai Arieli and Yakov Babichenko

"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

"On social networks that support learning" with Itai Arieli and Rann Smorodinsky
R&R in *Journal of Economic Theory*

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

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| OTHER JOURNAL PUBLICATIONS | "Algorithms for competitive division of chores" with Simina Brânzei<br>*Mathematics of Operations Research*, 2023 |
| | "Feasible joint posterior beliefs through examples" with Itai Arieli, Yakov Babichenko, Omer Tamuz<br>*SIGecom Exchanges*, 2021 |
| | "Representative Committees of Peers" with Reshef Meir and Moshe Tennenholtz<br>*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<br>*Operations Research Letters*, 2020, 48(5):573-578 |
| | "Dividing bads under additive utilities" with Anna Bogomolnaia, Herve Moulin, Elena Yanovskaya<br>*Social Choice and Welfare*, 2019, 52(3):395-417 |
| | "On repeated zero-sum games with incomplete information and asymptotically bounded values"<br>*Dynamic Games and Applications*, 2018, 8(1):180-198 |
| | "Repeated games of incomplete information with large sets of states"<br>*International Journal of Game Theory*, 2014, 43(4):767-789 |
| | "An exact renormalization formula for the Maryland model" with Alexander Fedotov<br>*Communications in Mathematical Physics*, 2015, 334(2):1083-1099 |

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| REFERRED CONFERENCE PUBLICATIONS | "Decomposable Stochastic Choice" with Omer Tamuz<br>*ACM Conference on Economics and Computation (EC'24)*, 2024 (extended abstract) |
| | "Stable Matching as Trasnportation" with Federico Echenique, Joseph Root<br>*ACM Conference on Economics and Computation (EC'24)*, 2024 (extended abstract) |
| | "Private private information" with Kevin He and Omer Tamuz<br>*ACM Conference on Economics and Computation (EC'22)*, 2022 (extended abstract) |
| | "Persuasion as transportation" with Itai Arieli and Yakov Babichenko<br>*ACM Conference on Economics and Computation (EC'22)*, 2022 (extended abstract) |
| | "Protecting the protected group" with Omer Ben-Porat and Moshe Tennenholtz<br>*The Thirty-Fifth AAAI Conference on Artificial Intelligence (AAAI-21)*, 2021 |
| | "On social networks that support learning" with Itai Arieli and Rann Smorodinsky,<br>*ACM Conference on Economics and Computation (EC'21)*, 2021 (extended abstract) |

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| TEACHING & ADVISING | Instructor | |
| | — "Mathematics for Economists" (ECO 500), Princeton<br>  best instructor award | 2023-2024 |
| | — "Statistics and Data Analysis for Economics" (ECO 202), Princeton | 2024 |
| | — "Algorithmic Economics" (CS/SS/EC149), Caltech<br>  developed from scratch intro to economic design for CS/math grads & undergrads | 2022-2023 |
| | — "Information in Games," Technion<br>  co-taught with Rann Smorodinsky | 2020 |
| | — "Introduction to Mechanism Design," HSE University<br>  co-taught with Alexander Nesterov | 2017 |
| | — Probability, Calculus 1, Algebra 1, St.Petersburg State University | 2013-2014 |

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)

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| **SERVICE** | Referee | |
| | — Journals: Econometrica, JPE, JET, TE, GEB, AEJ:micro, ET, SCW, MOR, EJOR, TEAC | |
| | — Grants: German-Israeli Foundation, Israel Science Foundation | |
| | Program committee member | |
| | — ACM Conference on Economics and Computation (EC); Area Chair in 2023, 2025 | 2019-2025 |
| | — The 17th Conference on Web and Internet Economics (WINE) | 2021 |
| | — Russian Game Theory Olympiad | 2018-2021 |
| | Organizer | |
| | — weekly economic theory seminar at Princeton | 2024-2025 |
| | — Victoria Kreps Memorial Prize for young game theorists and economic theorists | 2021 |
| | — conference "New Directions in Social Choice in St.Petersburg," HSE | |
| | — conference "Economic Design and Algorithms in St.Petersburg," HSE, | 2019 |
| | — school "Game Theory: Applications, Networks, Emotions," HSE | |
| | — conference "Algorithmic aspects of Social Choice and Auctions," HSE | 2018 |
| | — conference "Advances in Fair Division," HSE | 2017 |
| | — school "Fair Division: Between Economics, Mathematics and Computer Science," HSE | |
| | — 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 (EC) | 2022 |
| | — multiple popular lectures on Game Theory and Economic Design | 2015-2018 |
| |      for undergrads and gifted high-school students | |
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| **GRANTS** | — PIMCO Fellowship in Data Science, Linde Institute Fellowship in Economics | 2022-2023 |
| **& AWARDS** | — 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" | 2016-2018 |
| | — RFBR 13-01-00462 "Variability of beliefs in multi-stage interactions" | 2013-2015 |
| | — B.L. Ovsievich prize in economics | 2013 |
| | — V. Deych prize for B.Sc. thesis in mathematical physics | 2009 |
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| **INVITED SEMINARS** | — NYU, Emory, UPenn, upcoming: Yale, 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 |
| | — Stanford MS&E, Caltech Econ., Bar-Ilan Econ., HUJI Econ-CS, Technion IE&M, | 2019 |
| |      TAU CS, TAU Math | |
| | — Rochester Econ., Technion IE&M | 2018 |
| | — HUJI Econ-CS | 2017 |
| | — HUJI Econ | 2013 |
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| **CONFERENCES** | — EC'22 (2 papers), INFORMS Annual Meeting, Stony Brook Game Theory, | 2022 |
| |      INFORMS Workshop on Market Design, LA Theory workshop | |
| | — EC'21, LA Theory workshop | 2021 |

— EC'20 (best paper award), CMID20, Dynamics and Information Workshop TAU     2020
— "De Aequa Divisione" at LUISS (invited talk and tutorial)     2019
— 22nd CTN Workshop, MATCH UP,     2017
    "Imperfect Markets" at NES (invited talk and tutorial)
— Congress of the GT Society, COMSOC 2016     2016
— MAGTA     2014
— 5th Israeli GT conference     2013
— Games and Strategy in Paris     2012