

BIELEFELD UNIVERSITY – CENTER FOR MATHEMATICAL ECONOMICS

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Education:

PhD in Economics, George Mason University,
Economics Dep. & Interdisciplinary Center for Economic Science, 2020
MA in Economics, Moscow State University, 2011
BA in Economics, Moscow State University, 2009

References:

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Teaching and Research Fields:

Game Theory (especially dynamic games), Microeconomic Theory,
Experimental Economics, Revealed Preference

Teaching Experience:

Graduate courses

Spring 2017, 2018, 2019 Experimental Economics II (Game theory), GMU, Teaching Assistant
Fall 2017, 2018 Math Economics II (Price theory), GMU, Teaching Assistant

Summer 2018, 2019	Math camp for graduate students, GMU, Instructor
Spring 2022	Computational Game Theory, EUI, Instructor
Spring 2022	Computational Game Theory, University of Lucerne, Instructor
Undergraduate courses	
Summer 2020 (online)	International Economics, GMU, Instructor
Summer 2017	Economic Problems and Public Policies, GMU, Instructor
Fall 2010	Intermediate Macroeconomics, Moscow State University, Teaching Assistant

Research Positions and Other Relevant Work Experience:

Sep. 2022 – present	Bielefeld University, Postdoctoral researcher
Sep. 2021 – Aug. 2022	European University Institute, Professor (part-time)
Sep. 2020 – Aug. 2022	European University Institute, Max Weber postdoctoral fellow
Nov. 2015 – Dec. 2019	George Mason University, Graduate Research Assistant
Apr. 2011 – May 2014	«Economics Expert Group», Moscow (Russia), Expert on structural reforms

Professional Activities

Workshops

Co-organizer of “Voters’ Preferences and Parties’ Performance in Politics Workshop” MWP Multidisciplinary research workshop, 2022
 Co-organizer of PriTech, "Pricing Technologies and their Economic and Social Consequences" MWP Multidisciplinary research workshop, 2021

Refereeing

Social Choice & Welfare, Games and Economic Behavior, Journal of Economic Behavior & Organization, Spring Meeting of Young Economists

Talks

2022	12th Conference Economic Design, “ <i>Reinforcement Learning in a Prisoner’s Dilemma</i> ”
2020	World Congress of Econometric Society, “ <i>Reconstructing Strategies in Dynamic Games</i> ”
2019	The Lisbon Meetings in Game Theory and Applications, “ <i>Assignment Markets: Theory and Experiments</i> ” Spring Meeting of Young Economists, “ <i>Mechanism Design with Memory and no Money</i> ” Stony Brook International Conference on Game Theory, “ <i>Mechanism Design with Memory and no Money</i> ”
2018	ESA World Meeting, “ <i>Revealed Social Preferences</i> ”

2017 Foundations of Utility and Risk Conference (FUR), *"Revealed Social Preferences"*
Econometric Society (NASMES), *"Revealed Social Preferences"*
Stony Brook International Conference on Game Theory, *"Revealed Markov Strategies"*
Spring Meeting of Young Economists, *"Revealed Social Preferences"*
ESA World Meeting, *"Bayesian-Nash Revealed"*

Grants, Scholarships, and Awards:

2020 Dissertation Completion Grant
2019 OLLI Scholarship Award
2018, 2019 Mercatus center Research grants

Job Market Paper:

"Reinforcement Learning in a Prisoner's Dilemma"

<https://arthurdolgoplov.net/papers/MemorylessPDQlearning.pdf>

Abstract: I fully characterize the outcomes of a wide class of Q-value based model-free reinforcement learning algorithms, such as Q-learning, in a Prisoner dilemma game. Learning is shown to always converge to one of the two states. Whether the players learn to cooperate or defect depends on the experimentation process and can be determined in a closed form from the relationship between the learning rate and the payoffs of the game. The results generalize to asymmetric learners and many learning and experimentation dynamics.

Research Papers:

"Learning and Acyclicity in the Market Game"

(with Cesar Martinelli)

<https://cadmus.eui.eu//handle/1814/72420>

"Assignment Markets: Theory and Experiments"

(with Cesar Martinelli, Daniel Houser and Thomas Stratmann)

https://arthurdolgoplov.net/papers/Dolgoplov_AssignmentMarkets.pdf

"Revealed Social Preferences"

(with Mikhail Freer)

https://arthurdolgoplov.net/papers/DolgoplovFreer_RevealedSocialPreferences.pdf

"Reconstructing Strategies in Dynamic Games"

(with Mikhail Freer)

https://arthurdolgoplov.net/papers/DolgoplovFreer_DynamicGames.pdf

Research Paper in Progress:

"Mechanism Design with Memory and no Money"

Other skills:

Data analysis:

Machine learning (unsupervised clustering on experimental data, reinforcement learning simulations)
Natural language processing (analyzing unstructured bargaining logs for laboratory experiment)

Programming

Optimization: YALMIP • Cvx • Ampl

Statistical/Mathematical packages: Octave/Matlab • Eviews • Stata • Wolfram Mathematica • R • Lean (proof assistant)

Experiment design: oTree • zTree • Unity • Python

General programming: Python • Tensorflow • C++ • C# • VB • SQL • MQL4

Languages

English (fluent), Russian (native), Italian (intermediate – reading, writing, speaking), French (basic reading and writing)