# Mariia "Masha" Titova

# ECONOMICS DEPARTMENT UNIVERSITY OF CALIFORNIA, SAN DIEGO CHICK HERE FOR THE LATEST VERSION

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# CONTACT INFORMATION

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#### **EDUCATION**

Ph.D. Candidate in Economics

2021 (est.) La Jolla, CA

 ${\it University~of~California,~San~Diego}$ 

• Committee: Renee Bowen (co-chair), Joel Sobel (co-chair), Simone Galperti, Joel Watson, Sebastian Saiegh (dept. of Political Science)

M.Sc. in Financial Economics

2015

B.Sc. in Applied Mathematics and Information Science

2013

National Research University - Higher School of Economics

Moscow, Russia

# REFERENCES

Renee Bowen	UC San Diego	r0bowen@ucsd.edu
Joel Sobel	UC San Diego	jsobel@ucsd.edu
Simone Galperti	UC San Diego	sgalperti@ucsd.edu
Melissa Famulari (teaching reference)	UC San Diego	mfamulari@ucsd.edu

#### FIELDS OF INTEREST

Microeconomic Theory, Information Economics, Political Economy

#### JOB MARKET PAPER

#### "Persuasion with Verifiable Information"

September 2020

This paper studies persuasion with verifiable information. An informed sender with state-independent preferences sends verifiable messages to multiple receivers attempting to convince them to approve a proposal. I first find that every equilibrium is outcome equivalent to a direct equilibrium, in which the sender tells each receiver what to do, and receivers obediently follow their recommendations. This allows me to characterize the full equilibrium set. The sender-worst equilibrium outcome is one in which

information unravels, and receivers act as if under complete information. The sender-preferred equilibrium outcome is the commitment outcome of the Bayesian persuasion game. In the leading application, I study targeted advertising in elections and show that by communicating with voters privately, a challenger may win elections that are unwinnable otherwise. When the challenger swings an election, voters regret their choices, and the amount of regret increases as the electorate becomes more polarized.

#### RESEARCH IN PROGRESS

#### "Collaborative Search for a Public Good"

November 2019

This paper studies a model of costly sequential search among risky alternatives performed by a group of agents. The learning process stops and the best uncovered option is implemented when the agents unanimously agree to stop, or when all the projects have been researched. Both the implemented project and all the information gathered during the search process are public goods. I show that the equilibrium path implements the same project based on the same information, gathered in the same order as the social planner. At the same time, due to free-riding, search in teams does lead to a delay at each stage of the learning process, the size of which grows with search costs. Consequently, the team manager prefers to delegate search to an individual agent, while every agent prefers searching with a partner, since in the latter case she collects the same reward, but only pays the search cost half the time.

# "Targeted Advertising in Elections"

October 2019

This paper studies how a politician who challenges the status quo optimally advertises his private policy position to the electorate via verifiable messages. Each voter has an ideal position on a finite number of issues and expressively votes for the candidate closest to it. Some elections are unwinnable when the challenger advertises publicly because the pivotal voters are located on the opposite sides of the status quo. Our main result states that by targeting, the challenger can swing any election that is unwinnable under public disclosure, but only if his position is moderately close to the status quo. That is inefficient because voters regret their choices with a positive probability. As the electorate of unwinnable elections becomes more polarized (which happens when voters move away from the status quo in the opposite directions), the challenger's odds of swinging elections rise, making the voters regret their choices more often.

# Published Papers

"Shopping Malls, Platforms and Consumer Search" with Alexei Parakhonyak International Journal of Industrial Organization, vol. 58, 2018, pp. 183–213

2018

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We consider a model of a market for differentiated goods in which firms are located in marketplaces e.g., shopping malls or platforms. There are search frictions between marketplaces, but not within. Marketplaces differ in size. We show that an equilibrium in which consumers start their search at the largest marketplace and continue in the descending order of size, always exists. Despite charging lower prices, firms in larger marketplaces earn higher profits. Under free entry, all firms cluster in one marketplace provided that search frictions are large enough. If a marketplace determines the price of entry, then the equilibrium marketplace size is a single-peaked function of search costs and is decreasing for most of the search cost range.

Updated: September, 2020

#### RELEVANT POSITIONS HELD

University of California, San Diego

La Jolla, CA

Research Assistant to James Andreoni, Renee Bowen, Joel Sobel, Charles Sprenger

2016 - present

NATIONAL RESEARCH UNIVERSITY - HIGHER SCHOOL OF ECONOMICS

Moscow, Russia

Research Assistant to Alexei Parakhonyak and Maarten Janssen

2013 - 2015

## TEACHING EXPERIENCE

University of California, San Diego

La Jolla, CA Summer 2020

Main Instructor

• Econ 1 (Introductory Microeconomics)

Teaching Assistant

2016 - present

• Econ 1 (Introductory Microeconomics), Econ 100ABC (Microeconomics), Econ 171 (Decisions Under Uncertainty), Econ 172B (Operations Research), Econ 176 (Marketing)

NATIONAL RESEARCH UNIVERSITY – HIGHER SCHOOL OF ECONOMICS Co-Instructor (with Alexis Belianin)

Moscow, Russia 2014 –2015

• Game Theory for Political Scientists (Graduate, Master in Political Analysis and Public Policy)

Teaching Assistant

2011 - 2015

- Game Theory, Development Economics (University of London External Programme)
- Real Analysis, Game Theory, Differential Equations (dept. of Computer Science)

# ACADEMIC SERVICE

2019 Organizer, the UCSD Economic Theory Reading Group

# PRESENTATIONS

- 2019 Young Economists Symposium (Columbia University), Economics Graduate Student Conference (Washington University in St. Louis), UCSD Theory Lunch
- 2018 Southwest Economic Theory Conference (UC Santa Barbara), UCSD Theory Lunch
- 2017 Psychological Game Theory Ph.D. Summer School (Norwich, UK), UCSD Theory Lunch

REFEREE SERVICE

2019 Economic Theory

## Fellowships and Awards

Summer Graduate Teaching Scholar	2020
UC San Diego Economics Department Candidate of Philosophy Fellowship	2019
UC San Diego International Travel Grant	2017, 2019
UC San Diego Graduate Summer Research Fellowship	2016, 2017
UC San Diego Regents Fellowship	2015 - 2018

# OTHER INFORMATION

Languages: fluent English, native Russian

Programming: proficient in Python and MATLAB

Certifications: CFA Level I (December 2012)

Citizenship: Russia (F-1 visa)