RESEARCH STATEMENT

Maria Titova

I am an economic theorist interested in strategic settings in which agents have imperfect information. I have completed four papers. Two of the papers study persuasion, in which an informed agent decides how to influence a less informed decision-maker. The other two papers study search problems, in which an agent must decide how to learn.

TRANSMISSION OF INFORMATION

In my job market paper "*Persuasion by Verifiable Information*," I show how an informed sender convinces uninformed receivers to take his favorite action. The underlying assumption behind the verifiability of the sender's messages is that the sender has hard evidence and chooses how much of it to reveal to the receivers. I characterize the set of equilibrium outcomes of this game. In the sender's least preferred equilibrium, he voluntarily discloses all the evidence he has, and the receivers make choices as if under complete information. In the sender's most preferred equilibrium, he obfuscates his private information as much as possible, so long as the receivers respond to it by taking his favorite action. I find that the sender-preferred equilibrium outcome is also a commitment outcome. In other words, the sender can persuade the receivers to change their behavior with evidence and without commitment power. The paper describes several applications and provides a detailed discussion of a model of persuading voters.

In the leading application of my job market paper and my working paper "*Targeted Advertising in Elections*," I study how a challenger convinces voters to elect him. The voters choose between the challenger and the status quo based on which of these two policies is closest to the voter's bliss point in a multi-dimensional policy space. First, I show that some elections are unwinnable for the challenger, meaning that he loses these elections in every equilibrium when he advertises publicly. Whether an election is unwinnable depends on how polarized the electorate is and what social choice function determines the outcome of the election. I show that the challenger can win any unwinnable election with positive probability by targeted advertising. He would first identify the pivotal voters who represent the "left" and the "right" positions on each issue. He would then skew the left pivot's message toward the right, and vice versa, convince

them both and win the election. I intend to explore the empirical validity of the model; theory implies that the collection and use of personal data in electoral campaigns should be restricted.

ACQUISITION OF INFORMATION

I am also interested in situations in which agents search for the information themselves, without relying on a third party to supply it. "*Collaborative search for a Public Good*" studies environments where a team of people (e.g., policymakers) is presented with a problem that requires a collective solution. Team members must engage in costly sequential search to learn about possible solutions (e.g., possible policies). Specifically, in each period of the search process, one of the team members can select a policy, pay the search cost, and learn the consequences of that policy. The learning process is terminated, and the best uncovered policy is implemented, when all the options have been researched or when the team members agree to stop. In the end, not only the resulting policy but also all the gathered information is a public good. I show that group search results in the socially optimal search and stopping protocol, but a delay occurs at every stage of the learning process because agents free ride. Consequently, it is better to delegate the search for information to an individual agent. In contrast, each agent prefers searching with a partner, since in the latter case, they implement the socially optimal policy but only pay the search cost half the time.

In addition to applications to political economy, I have also worked on a model of consumer search. In my paper "*Shopping Malls, Platforms and Consumer Search*," coauthored with Alexei Parakhonyak, we study how consumers search for goods in the presence of both shopping malls and stand-alone stores. We find that the consumers go to larger marketplaces first because they learn more information (by exploring a wider variety of products) and expect lower prices (due to tougher competition between firms within the malls). Stand-alone stores coexist with shopping malls because they charge high prices and rely on the demand from consumers who visited the mall but did not find a product that matches their taste.