# **Daniil Larionov**

https://www.daniillarionov.com daniil.larionov@zew.de +49 621 1235-187 ZEW Mannheim L 7, 1 68161 Mannheim Germany

# Academic employment

• Postdoctoral researcher, 2022 - present, ZEW Mannheim

## Education

- PhD in Economics, 2022, University of Mannheim
- MSc in Economics, 2017, University of Mannheim
- BSc in Economics, 2014, Saint Petersburg University

## References

### Thomas Tröger

University of Mannheim thomas.troeger@uni-mannheim.de +49 621 181-3423

#### Takuro Yamashita

Osaka University yamashita.takuro.osipp@osaka-u.ac.jp +81 6 6850 6111

### Martin Peitz

University of Mannheim martin.peitz@gmail.com + 49 621 181-1835

#### Vitali Gretschko

University of Münster vitali.gretschko@wiwi.uni-muenster.de +49 251 83-25007

### Research fields

• Microeconomics, Industrial Organization, Market Design

# Working papers

## • Full Surplus Extraction from Colluding Bidders (Job Market Paper)

I consider a repeated auction setting with colluding buyers and a seller who adjusts reserve prices over time without long-term commitment. To model the seller's concern for collusion, I introduce a new equilibrium concept: collusive public perfect equilibrium. For every strategy of the seller I define the corresponding "buyer-game" in which the seller is replaced by Nature who chooses the reserve prices for the buyers in accordance with the seller's strategy. A public perfect equilibrium is collusive if the buyers cannot achieve a higher symmetric public perfect equilibrium payoff in the corresponding buyer-game. In a setting with symmetric buyers with private binary iid valuations and publicly revealed bids, I find collusive public perfect equilibria that allow the seller to extract the entire surplus from the buyers in the limit as the buyers' discount factor goes to 1. I therefore show that a non-committed seller can effectively fight collusion even when she faces patient buyers, can only set reserve prices, and has to satisfy stringent public disclosure requirements.

## • First Best Implementation with Costly Information Acquisition

with Hien Pham, Takuro Yamashita, and Shuguang Zhu

We study mechanism design with flexible but costly information acquisition. There is a principal and four or more agents, sharing a common prior over a set of payoff-relevant states. The principal proposes a mechanism to the agents who can then acquire information about the state by privately designing a signal device. As long as it is costless for each agent to acquire a signal that is independent from the state, there exists a mechanism which allows the principal to implement any social choice rule at zero information acquisition cost to the agents.

# Work in progress

#### • Bilateral Trade with Costly Information Acquisition

with Takuro Yamashita

We study a bilateral trade problem with flexible but costly information acquisition. There is a buyer and a seller who can trade a single unit of a good through an intermediary who designs a mechanism to facilitate their trade. In the beginning, the buyer, the seller and the intermediary share a common prior over a finite set of states of the world. The intermediary proposes a mechanism to the players, who can then acquire information about the state of the world by privately designing a signal device. Assuming that the information acquisition cost is proportional to the expected reduction in entropy, we characterize the set of implementable allocations. Using the implementability conditions, given by a finite-dimensional system of equations and inequalities, we maximize the intermediary's revenue over all implementable and allocationally efficient mech-

anisms. Under certain symmetry conditions, our revenue maximization problem can be solved in closed form.

## Conferences and invited talks

- 2023: European Winter Meeting of the Econometric Society (scheduled), Fifth Economics of Public Procurement Workshop, Annual Conference of the Society for Operations Research in Germany (OR 2023), MaCCI Annual Conference
- 2022: Duke's Fuqua School of Business

# Organization of workshops and conferences

• Co-organizer of the 2023 European Workshop on Market Design

# Teaching (TA) - University of Mannheim

#### PhD level

- Advanced Microeconomics III Spring 2021, Spring 2020, Spring 2019
- Advanced Microeconomics I Fall 2017

#### Master's level

- Advanced Microeconomics Fall 2021, Fall 2020
- Industrial Organization: Markets and Strategies Spring 2022, Spring 2021, Spring 2020, Spring 2019, Spring 2018

#### Bachelor's level

• Game Theory Spring 2021