# LEON MUSOLFF

→ ±1 (609) 933 · 5213 Imusolff@princeton.edu Imusolff.com

Department of Economics · Julis Romo Rabinowitz Building · Princeton University

#### REFERENCES

Prof. Jakub Kastl Department of Economics Princeton University (609) 258-4012 jkastl@princeton.edu Prof. Kate Ho
Department of Economics
Princeton University
(609) 258-4032
kate.ho@princeton.edu

Prof. Adam Kapor Department of Economics Princeton University (609) 258-7354 akapor@princeton.edu

Placement Director: Gianluca Violante; violante@princeton.edu; (609) 258-4003.

Graduate Administrator: Laura Hedden; lhedden@princeton.edu; (609) 258-4006.

#### **EDUCATION**

**Princeton University** 2016 - Present (Expected May 2022) Ph.D. in Economics Princeton, US **Princeton University** 2016 - 2018 M.A. in Economics Princeton, US **University of Oxford** (Nuffield College) 2014 - 2016 M.Phil. in Economics Oxford, UK **University of Oxford** (University College) 2011 - 2014 B.A. in Philosophy. Politics & Economics Oxford, UK

## **RESEARCH AND TEACHING INTERESTS**

Primary: Industrial Organization, Economics of Digitization

**Secondary**: Political Economy

## Job Market Paper

"Entry into Two-Sided Markets Shaped by Platform-Guided Search" with Kwok-Hao Lee

We evaluate the problem of firms that operate platforms matching buyers and sellers, while also selling goods on these same platforms. By being able to guide consumer search through algorithmic recommendations, these firms can influence market outcomes, a finding that has worried regulators. To analyze this phenomenon, we combine rich novel data about sales and recommendations on Amazon Marketplace with a structural model of intermediation power. In contrast to prior literature, we explicitly model seller entry. This feature enables us to assess the most plausible theory of harm from self-preferencing, i.e. that it is a barrier to entry. We find that recommendations are highly price elastic but favor Amazon. A substantial fraction of customers only consider recommended offers, and recommendations hence noticeably raise the price elasticity of demand. By preferring Amazon's offer, the recommendation algorithm raises consumer welfare by approximately \$4.5 billion (since consumers also prefer these offers). However, consumers are made worse off if self-preferencing makes the company raise prices by more than 7.8%. By contrast, we find no evidence of consumer harm from self-preferencing through the entry channel. Nevertheless, entry matters. The algorithm raises consumer welfare in the short and medium run by increasing the purchase rate and intensifying price competition. However, these gains are mostly offset by reduced entry in the long run.

## **PAPERS**

"Buying Voters with Uncertain Instrumental Preferences" with Charles Louis-Sidois

**R&R Theoretical Economics** 

We analyze a vote-buying setup where a committee votes on a proposal important to the vote buyer. We characterize the cheapest combination of bribes that guarantees the proposal's passing in different voting environments. We find that the vote buyer publicly offers small bribes to a large supermajority of members for both simultaneous and sequential votes. Each member accepts because he anticipates that the proposal will pass regardless of his vote. We discuss the committee design that maximizes capture

cost: combining demanding majority requirements with diversity among members makes the committee more expensive. In small committees, sequential voting increases cost, but the opposite is true for large committees. On the other hand, additional members and transparent voting rules lower the cost.

"Detection of Collusive Networks in E-Procurement" with Bruno Baránek and Vítězslav Titl

Collusion between government suppliers likely has significant adverse welfare effects. In this paper, we study an e-procurement market in Ukraine. After motivating our interest by documenting suspicious bidding patterns in our data, we build a model of competitive equilibrium. Frequently, we observe bids that are inconsistent with this equilibrium. In particular, when initial bids are close, suppliers should have similar costs and usually be willing to undercut each other if allowed to update their bids. To the extent that firms only engage in the predicted amount of undercutting when facing some opponents (but not when facing others), we conclude that these firms are part of a collusive ring. Finally, we successfully validate the soundness of this novel structural test of collusion on a sample of 863 prosecuted collusive firms that participated in 23,515 tenders.

## "Algorithmic Pricing Facilitates Tacit Collusion"

**Torres Prize** 

As the economy digitizes, menu costs fall, and firms' ability to monitor prices increases. These trends have led to the rise of automatic pricing tools or 'repricers.' We employ a novel e-commerce dataset to examine the potential implications of these developments on the quality of price competition. We provide evidence from an RDD that shows that the activation of automatic repricing strategies initially causes a significant decline in prices. However, repricers have developed strategies to avoid the stark competitive realities of Bertrand-Nash competition. By employing plausibly exogenous variation in the execution of repricing strategies, we find that 'resetting' strategies (where prices are raised, e.g., at night) effectively coax competitors to raise their prices. While the resulting patterns of cycling prices are reminiscent of Maskin-Tirole's Edgeworth cycles, a model of equilibrium in delegated strategies fits the data better. This model suggests that if repricers remain at their current capability level, cycling will increase, and prices could rise significantly in the future. Finally, we estimate demand and employ our model to infer costs. The resulting cost estimates align with held-out self-reported cost data. Both cost measures suggest that welfare under automated repricing is comparable to welfare under monopoly pricing.

## **WORKS IN PROGRESS**

"Data Transparency and Public Oversight in E-Procurement" with Bruno Baránek and Vítězslav Titl

## **TEACHING EXPERIENCE**

Intermediate Microeconomics Teaching Assistant for Prof. Can Urgun	<b>2018 - 2020</b> Princeton, US
Maths for Economists Tutor at John Locke Institute	<b>2016 - 2018</b> <i>Princeton, US</i>
Mathematical Analysis for Economists Teaching Assistant for Prof. John Wilson	<b>2015</b> Oxford, UK
<b>Economics for High-School Students</b> <i>Educational Consultant at CamExpress</i>	<b>2011</b> Guangzhou, CN
RESEARCH EXPERIENCE	
Research Assistant for Prof. Sarah Moshary Research Assistant for Prof. Stephen Morris Research Assistant for Prof. Johannes Abeler	2020 - 2021 2017 2015
Research Assistant for Dr. Marcos Vera-Hernandez	2013

<sup>&</sup>quot;The Returns to Targeted Sponsored Search" with Sarah Moshary

## AWARDS, HONOURS, FELLOWSHIPS AND GRANTS

Princeton University Fellowship	2016 - 2021
Weiss Fund for Research in Development Economics, \$10,000 award	2020
Marimar & Cristina Torres Prize for Best Third-Year Paper	2019
German National Academic Foundation Scholarship	2013 - 2018
Harold Willis Dodds Merit Fellowship in Economics	2016
ESRC Studentship	2014 - 2016
Departmental Prize for Best Examination Performance (Ranked #3 of 60 Oxford MPhil students)	2015
Hicks-Webb Prize for "Best Overall Performance in Economics" (Ranked #1 of 348 Oxford BA students)	2014
Ranked #1 of 247 in both Preliminary & Final Examinations at Oxford	2011 - 2014

## **ADDITIONAL INFORMATION**

**Languages**: German (native), English (native fluency)

Programming: SQL, Julia, Python, Stata, ETEX