

Pavel (Pasha) Andreyanov

Curriculum Vitae

PERSONAL DATA

PLACE AND DATE OF BIRTH: Moscow, Russia | 10 February 1987
ADDRESS: B. Pionerskaya 37/38 108, 115054, Moscow, Russia
PHONE: +1 310 895 66 13
EMAIL: pandreyanov@gmail.com
WEBSITE: pandreyanov.com

ACADEMIC APPOINTMENTS

2019 - **Assistant Professor** Higher School of Economics, National Research University, Moscow, Russia

EDUCATION

2019 - 2021 **Yandex School of Data Analysis** Moscow, Russia
2013 - 2019 **PhD in Economics** at University of California Los Angeles, USA
Thesis: "Mechanism choice in scoring auctions."
Advisors: John Asker, Tomasz Szadzik, Moritz Meyer-ter-Vehn

2011 - 2013 **Master of Arts in Economics** at New Economic School, Moscow, Russia
Thesis: "Recursive stability in risk sharing communities without enforcement."
Advisors: Konstantin Sonin, Andrei Bremzen

2004 - 2010 **Master of Science in Mathematics** at Moscow State University, Russia
Thesis: "Liouville classification of the Kovalevskaya-Jehia dynamic system."
Advisors: A.T. Fomenko, A.A. Oshemkov, A.V. Bolsinov

TEACHING

NES, Moscow, TA: Mathematics for Economists
UCLA, TA: Microeconomics, Game Theory
HSE, Moscow, Lecturer: Microeconomics, Auctions, Machine Learning

AWARDS

NES: 2011-2012 British Petroleum Fellowship, UCLA: 2018-2019 Dissertation Year Fellowship

COMPUTER SKILLS

Python, SQL, Mathematica, Stata, C++

RESEARCH INTERESTS

Theory: Mechanism design, Auction design Industrial Organization: Procurement, Collusion

RESEARCH ASSISTANCE

John Asker (UCLA), Moritz Meyer-Ter-Vehn (UCLA), Robert Zeithammer (UCLA, Anderson),
Georgy Egorov (Northwestern, Kellogg) and Konstantin Sonin (University of Chicago, Harris)

PAPERS

Published
REStud (2020)

Title: Robust Mechanisms of Exchange

Authors: P. Andreyanov, prof. T. Sadzik

Presentations: Economic Theory Workshop, UCLA, 2016; European Meeting of the Econometric Society, Geneva, 2016; North American Meeting of Econometric Society, Philadelphia, 2016; European Meeting of Econometric Society, Geneva, 2016; Canadian Economic Theory Conference, Montreal, 2016; ESSET, Gerzensee, 2016; South West Economic Theory Conference, Riverside, 2016; World Congress of Game Theory Society, Maastricht, 2016

Abstract: We study robust mechanisms of trade in two-sided markets, in a quasi-linear setting with interdependent signals. An ex-post incentive compatible, individually rational mechanism that runs budget surplus exists and is implemented via a conditional pay-as-bid double auction. A small brokers fee is enough to make the mechanism run ex post budget surplus and be asymptotically ex post efficient.

Submitted
QE (2020)

Title: Secret Reserve Prices by Uninformed Sellers

Authors: prof. P. Andreyanov, prof. El Hadi Caoui

Presentations: ...

Abstract: If bidders are better informed than the seller about a common component of auction heterogeneity, the seller can allocate more efficiently by keeping her reserve price secret and revising it using submitted bids. We build a model of a first-price auction under unobserved auction heterogeneity—imperfectly observed by the seller—that captures this rationale and derive conditions for identification. An application to French timber auctions, where such revisions are widely used, shows that having perfect information about unobserved auction heterogeneity would increase surplus by 4.43%. Combining a secret reserve price with learning from submitted bids reduces this surplus gap by up to 80%.

JMP

Title: Mechanism Choice in Scoring Auctions

Authors: P. Andreyanov

Presentations: IO and Theory proseminars at UCLA 2017, 2018.

Abstract: A first-score auction requires weighing the price-bid against non-price characteristics of the firm. This paper theoretically and empirically studies the welfare implications of switching between the two leading designs of the scoring rule: linear ("weighted") and log-linear ("adjusted"), when the designer's preferences over quality and money are unknown. Motivated by the empirical application, a new model of a scoring auction is formulated, with two key elements: exogenous quality and a reserve price, and a single equilibrium characterization is derived for a multitude of scoring rules. The data is drawn from the Russian procurement sector in years 2011–2013, in which the linear scoring rule was applied. The underlying distribution of firms' types are non-parametrically estimated and the equilibria in a large set of counterfactual scoring rules are simulated. The empirical results show that for any log-linear scoring rule in this set, there exists a linear one, yielding a higher expected quality and rebate. Hence, at least with risk-neutral preferences, the linear design is superior.

- Working Paper* | **Title: Corruption in Russian Procurement Auctions**
Authors: P. Andreyanov, V. Korovkin (UCLA, Anderson), A. Davidson
Presentations: IO proseminar at UCLA, 2016; Development and Political Economics Ph.D. Student Conference, Berkeley 2016; Russian Summer School on Institutional Analysis, HSE Moscow, 2016; The Northeast Universities Development Consortium Conference, Boston, 2016; University of California GEM-BPP Research Workshop, Santa-Barbara, 2016
Abstract: We use the timing of bids as a detection tool for corruption in sealed bid auctions. Because timing does not directly influence the outcome in the sealed bid auction, it's choice is idiosyncratic for the competitive bidders. In presence of collusion, however, the choice of timing starts to play an important strategic role. We find that the observed timing patterns are consistent with large scale corruption.
- Working Paper* | **Title: Robust Mechanisms for Public Goods**
Authors: P. Andreyanov, prof. J. Copic, B.H. Jeong
Presentations: Theory proseminar at UCLA, 2016, 2017
Abstract: We study robust mechanisms for public goods among n agents in a risk neutral-setting. We show that any ex-post incentive compatible, individually rational and budget balanced mechanism is equivalent to a lottery over posted prices, if transfers are nonnegative. The theorem holds for deterministic, differentiable and non-differentiable allocation functions.
- Working Paper* | **Title: 21 century media capture**
Authors: E. Abramov (Harvard) , P. Andreyanov
Abstract: We build a model of perfectly competitive news media market with a novel feature of quality externalities. Employing the model, we show that perfect competition can make the market converge to a fake-news equilibrium as well as to an informative-news equilibrium. Based on the model, we demonstrate how such a structure of news media market can be exploited by a politician in order to effectively achieve media capture without totalitarian control over the media.