

Denis Nekipelov

Curriculum Vitae

Date: October 2015

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Employment

July 2014 – present, *Associate Professor of Economics and Computer Science*,
University of Virginia

July 2009 – present, *Visiting researcher*, Microsoft Research – New England

July 2009 – June 2014, *Assistant professor*, Department of Economics, UC
Berkeley

June 2008 – June 2009, *Post-doctoral researcher*, Microsoft research – Silicon
Valley

Education

Ph.D. in Economics, *Duke University*, Durham, NC, USA, 2008

M.A. in Economics (Cum Laude), *New Economic School*, Moscow, Russia, 2003

M.Sc., B.Sc. in Applied Physics and Mathematics (with distinctions), *Moscow
Institute of Physics and Technology*, Moscow, Russia, 2003

Teaching

Interests:

Structural Econometrics for Big Data, Computational Methods of Industrial
Organization

Previous teaching:

UC Berkeley: Graduate Econometrics (1st year Ph.D. sequence); Computational
and Statistical Methods of Industrial Organization (2nd year Ph.D. elective);
Econometric Theory (advanced undergraduate course). *Duke*: Mathematics for
Economists (1st year Ph.D. course). *ZEW Workshop (Mannheim)*: Computational
methods for industrial organization (2-day course). *EC'10 Tutorial (Harvard)*:

Statistical analysis of structural models for applied computer scientists (2-lecture workshop).

Current teaching:

University of Virginia: Econometric Methods (Econ 4720), Econometrics for Data-Rich Environments (Econ 8995)

Publications

Estimating Static Models of Strategic Interactions (with Patrick Bajari, Han Hong and John Krainer), *Journal of Business and Economic Statistics*, 28 (4), pp. 469-482, 2010.

Semiparametric Efficiency in Nonlinear LATE Models (with Han Hong), *Quantitative Economics*, 1(2), pp.179-304, 2010.

Nonlinear Models of Measurement Errors (with Xiaohong Chen and Han Hong), *Journal of Economic Literature*, 49(4), pp. 901-937, 2011.

Efficient Local IV Estimation of an Empirical Auction Model (with Han Hong), *Journal of Econometrics*, 168(1), pp. 60-69, 2012.

Econometrics for Game Theory (with Patrick Bajari and Han Hong), in *Advances in Economics and Econometrics: Theory and Applications, 10th World Congress, 2013*.

Approximation Properties of Laplace-type Estimators (with Anna Kormilitsina), in *Advances in Econometrics, 2013*.

Mechanism Design for Data Science (with Jason Hartline and Shuchi Chawla), *Proceedings of the fifteenth ACM conference on Economics and computation. ACM*, pp. 711–712, 2014 (peer reviewed)

Eliciting Preferences of Sponsored Search advertisers, *SIGCOM Exchanges*, vol 13.1, 2014

Recovering Treatment Effects from Combined Data: Identification versus Data Security (with Tatiana Komarova and Evgeny Yakovlev), in *Economic Analysis of the Digital Economy*, eds. A. Goldfarb, S. Greenstein, C. Tucker, *The University of Chicago Press*, 2015.

Extremum Estimation and Numerical Derivatives (with Han Hong and Aprajit Mahajan), forthcoming at *Journal of Econometrics*

Consistent Variance of the Laplace Type Estimators: Application to DSGE Models (with Anna Kormilitsina), forthcoming at *International Economic Review*

Machine Learning Methods for Demand Estimation (with Patrick Bajari, Stephen Ryan and Miaoyu Yang), *American Economic Review: P&P*, 105(5), 2015.

Econometrics with Learning Agents (with Vasilis Syrgkanis and Eva Tardos), forthcoming at *Proceedings of the sixteenth ACM conference on Economics and computation. ACM, 2015* (ACM EC Best Paper Award)

Research Papers

Designing Large Advertising Markets Where Agents Have Heterogeneous Objectives: A Structural Empirical Approach (with Susan Athey)

Semiparametric Estimation of a Finite Horizon Discrete Choice Model with Application to the Analysis of Subprime Mortgage Defaults (with Sean Chu and Minjung Park)

Time and Risk Preferences of Subprime Mortgage Borrowers (with Sean Chu and Minjung Park)

A Structural Model of Sponsored Search Advertising (with Susan Athey)

Numerical Gradients and Extremum Estimation with U-statistics (with Han Hong and Aprajit Mahajan)

Identification, Data combination and the Risk of Disclosure (with Tatiana Komarova and Evgeny Yakovlev)

Private Extremum Estimation (with Evgeny Yakovlev)

Information Structure and Statistical Information in Discrete Response Models (with Shakeeb Khan)

A Note on the Role of Regularity Conditions in a Class of Models with Inverse Weighting

Nonparametric and Semiparametric Estimation of Dynamic Games of Incomplete Information (with Patrick Bajari, Victor Chernozhukov, and Han Hong)

All-Solution Homotopy Methods for Computing Equilibria in Static Games of Incomplete Information (with Patrick Bajari, Victor Chernozhukov, and Han Hong)

A/B Testing of Auctions (with Shuchi Chawla and Jason Hartline)

Presentations

2015 ASSA Winter, Georgetown, UW-Madison, Harvard, U of Michigan, U of Indiana, Simons Institute (Berkeley), LSE;

2014 Cornell, McGill, U of Toronto, Columbia, Zillow Inc., Microsoft Research, Harvard, U of Virginia, USC, UC Riverside, Johns Hopkins U, PennState, SMU

2013 Microsoft Research, Stanford, Rochester, Ohio State, HEC Montreal, U of Toronto, NYU

2012 UCLA, LSE, Northwestern, Cornell, Microsoft Research, Berkeley, UW-Madison, U of Washington; **2011** UPenn, Duke, MIT, Microsoft Research, eBay labs, Yale, LSE;

2010 EC 2010 Meetings, LSE, UCL, Harvard, Yale, Cowles foundation Conference, WCES in Shanghai, University of Melbourne, LaTrobe, UNSW, University of Technology Sydney, Maquaire, UC Berkeley, USC, UC Davis, SICS 2010, Microsoft Advertising, Cowles foundation, NBER winter meetings, SITE;

2009 Cowles foundation, Georgetown, University of Maryland, University of Alicante, University of Amsterdam, Tilburg, UC Davis, UCSD, LSE, UCL, SMU, Northwestern;

2008 Princeton, Microsoft Research, Stanford GSB, Berkeley, UPenn, Carnegie Mellon (Tepper), Chicago GSB, Rice, Penn State, Georgia State (Robinson), University of Minnesota, Washington University (Olin), NYU, NYU (Stern),

Columbia, UCLA, MIT (Sloan), Stony Brook, Northwestern, Microsoft Research, Berkeley (Haas), Harvard (IO), Harvard/MIT (Econometrics), Rochester

Advising

Pedro Gardete (2011, *Stanford GSB*), Evgeny Yakovlev (2012, *New Economic School*), TI Kim (2013, *Emory Business School*), Yongdong Liu (2015, *University College London*)

Grants

2015 Google faculty research grant (awarded for 2015-2016)
2014 NSF collaborative research grant (awarded for 2014-2015)
2012 Sloan Foundation research grant (awarded for 2012-2015)
2011 NSF collaborative research grant (awarded for 2011-2015)
2010 NSF collaborative research grant (awarded for 2010-2013)

Honors and Awards

2015 ACM EC Best Paper Award
2011 US Patent US 2011/0313851 "A Tool for Analysis of Sponsored Search Auctions"
2008 Review of Economic Studies European Tour
2003 -2008 H. Gregg Lewis fellowship, Duke University

Professional Activities

2015-present, Advisory Board Member, Data Science Institute, University of Virginia
2014-present, Associate Editor, Quantitative Marketing and Economics
2013-present, Senior Program Committee Member, ACM Economics and Computation Conference
2015 Co-Organizer, Algorithmic Game Theory and Data Science Workshop, Portland OR