

Gaurab Aryal

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Education

Ph.D. Economics, The Pennsylvania State University, 2010.
(Advisors: Isabelle Perrigne and Quang H. Vuong)

M.S. (Quantitative Economics), The Indian Statistical Institute, Delhi, 2004.

B.A. (Honors) Economics, *First Class Honors*, Sri Ram College of Commerce, University of Delhi, 2002.

Academic Positions

Assistant Professor of Economics, University of Virginia, August 25, 2015 –

Post Doctoral Instructor, Economics Department, University of Chicago, Jan 2014 – August 24, 2015.

Assistant Professor, Research School of Economics, Australian National University, July 2010– Jan 2014
(confirmed/tenured starting July, 2013).

Short Visits

Visiting Assistant Professor, Boston University, Summer 2021.

Visiting Assistant Professor, UNC Chapel-Hill, Fall, 2018.

Duke University, Jun. 15-August 15, 2018.

Stanford University, April. 20-25, 2015.

New York University, November. 3-11, 2014.

Visiting Scholar: Collegio Carlo Alberto, Turin, Italy. Nov. 2010- Feb., 2011.

Research

Published or Forthcoming or Conditionally Accepted Papers (in reverse chronological order)

1. "Signaling and Employer Learning with Instruments," with Manudeep Bhuller and Fabian Lange. conditionally accepted **American Economic Review**
2. "Coordinated Capacity Reduction and Public Communication in the Airlines Industry," with Federico Ciliberto and Benjamin T. Leyden. forthcoming **Review of Economic Studies**
3. "An Empirical Analysis of Competitive Nonlinear Pricing," (2020) with Maria F. Gabrielli **International Journal of Industrial Organization**, vol. 68, issue C, 102538
4. "Semiparametric Estimation of First-Price Auction Models," (2019) with Maria F. Gabrielli and Quang Vuong. **Journal of Business & Economics Statistics**, vol. 39, 2, 373-385.
5. "Empirical Relevance of Ambiguity in First Price Auctions," (2018) with Serafin Grundl, Dong-Hyuk Kim and Yu Zhu. **Journal of Econometrics**, vol. 204, 189-206.

6. "A Note on Kuhn's Theorem with Ambiguity Averse Players," (2014) with Ronald Stauber. **Economics Letters**, vol. 125, issue 1, pp. 110-114.
7. "Trembles in Extensive Games with Ambiguity Averse Players," (2014) with Ronald Stauber. **Economic Theory**, vol. 57, issue 1, pp. 1-40.
8. "A Point Decision for Partially Identified Auction Models," (2013) with Dong-Hyuk Kim. **Journal of Business and Economic Statistics**, vol. 31, no. 4, pp. 384-397.
9. "Testing for Collusion in Asymmetric First-Price Auctions," (2013) with Maria F. Gabrielli. **International Journal of Industrial Organization**, vol. 31, pp. 26-35.

Papers Submitted for Publication

1. "Econometrics of Insurance Models with Multidimensional Screening," with Isabelle Perrigne and Quang Vuong. (Revise and Resubmit at **Quantitative Economics**)
2. "Identifying a Screening Model with Multidimensional Consumer Heterogeneity." (Revise and Resubmit at **Journal of Econometrics**)
3. "Price Discrimination In International Airline Markets," with Charles Murry and Jonathan Williams. (Revise and Resubmit at **Review of Economic Studies**)
4. "Empirical Framework for Cournot Oligopoly with Private Information," with Federico Zincenko.
5. "Procurements with Bidder Asymmetry in Cost and Risk-Aversion," with Hanna Charankevich, Eugene Jeong and Dong-Hyuk Kim. (Revise and Resubmit at **Journal of Business & Economic Statistics**)
6. "Auctioning Annuities," with Eduardo Fajnzylber, Maria F. Gabrielli and Manuel Willington.

Work In Progress

1. "Common-Subcontracting and Multimarket Contact in the Airline Industry," with Dennis J. Campbell, Federico Ciliberto and Ekaterina A. Khmelnitskaya.
2. "An Event Study Approach to Valuing Pharmaceutical Drugs and Patents," with Federico Ciliberto, Leland Farmer and Ekaterina A. Khmelnitskaya.
3. "The Expected Herfindahl-Hirschman Index: A Concentration Measure of Innovation Pipelines," with Federico Ciliberto, Ekaterina A. Khmelnitskaya, and Margaret Kyle.
4. "Identification and Estimation of Rent-Seeking Contest Models with Asymmetric Information." with Jun Xiao.
5. "Does Competition Increase Adverse Selection? Lessons from the Italian Auto Insurance Industry," with Marco Cosconati.

Conference and Seminar Presentations

Conferences:

DC-IO Day 2021 (University of Maryland, June 2021), 19th Annual Int. Industrial Organization Conference (April-May, 2021, Virtual), WEAI Conference 2021, TIAA Institute Fellows Symposium 2021 co-hosted by Pension Research Council at UPenn Wharton, Informs Annual Meeting 2020 (organizer of a session on Empirical Auctions), DC-MD-VA Econometrics Workshop 2020, 2020 Econometrics Society Meeting (San Diego), 2019 Southern Economic Association, 2019 SITE Conference (Stanford), Barcelona Graduate School of Economics (Summer Forum 2019), 2018 Asia Pacific IO Conference (University of Melbourne), 2018 Southern Economic Association, 2018 FTC Microeconomics Conference,

SITE (Stanford, 2018), DC-IO Day (University of Maryland, May 2018), Economics of Media and Communications Conference (Becker Friedman Institute, May 2018), 16th Annual Int. Industrial Organization Conference (April, 2018, Indiana Uni.), Research Triangle Econometrics Conference at Duke (2017), Southern Economic Association (2017), UVA-Richmond Fed Jamboree (2017), INFORMS (2017), NYU-Crate (2017, Discussant), 14th Annual Int. Industrial Organization Conference (April, 2016, Drexel Uni.), 26th Int. Game Theory Conference (Stony Brook Uni., July 2015), 25th Int. Game Theory Conference (Stony Brook Uni., July 2014), 12th Annual Int. Industrial Organization Conference (April, 2014, Northwestern Uni.), Market Design Conference (Uni. of Melbourne, 2013), Australasia Economic Theory Workshop (UQ, 2013), Game Theory Congress (Istanbul, 2012), Econometric Society (Denver, 2011), SITE (Stanford, 2009).

Seminars:

2021: Deakin Uni. **2020:** NYU Stern. **2019:** Uni. of Toronto, Penn State, Queens Uni., Uni. of Oslo. **2018:** Federal Trade Commission, Vanderbilt University. **2017:** Uni. of Pittsburgh, Texas A&M, Rice Uni., Washington Univ. at St. Louis. **2016:** Uni. of Toronto. **2015:** Penn State, Uni. of Michigan, UVA, UC at Riverside, Stanford Uni. (IO Lunch), USC, UBC. **2014:** Uni. of Chicago, Georgetown Uni., JHU., MSU. **2013:** UNSW, Uni. of Chicago, Melbourne Law School, Duke (IO/Public Lunch). **2012:** Bilkent Uni., Melbourne Uni., Uni. of Queensland. **2011:** LSE, Queen Mary Uni. of London, PSE, Tilburg Uni. (Center), Collegio Carlo Alberto. **2010:** Ohio State, Columbia University, IITAM (Mexico), Uni. of Sydney, ANU, Uni. of Queensland, NUS, Collegio Carlo Alberto. **2009:** Penn State, SITE (Stanford).

Honors, Awards, & Fellowships

3Cavaliers Program, UVA, 2021-2022, with Zhaohui Chen and Chris Young. \$15,000.

Bankard Fund for Political Economy (Research Grant), UVA 2021-2022, with Federico Ciliberto. \$59,990.40.

College of Arts and Social Science grant, UVA 2020. \$1,500.

College of Arts and Sciences' Quantitative Collaborative Grant, UVA 2020, joint with Federico Ciliberto. \$12,500.

College of Arts and Social Science grant, UVA 2019, joint with Federico Ciliberto. \$3,000.

Pension Research Council UPenn/TIAA-CREF Institute Partnership Grant, 2019-2020. \$36,500.

Bankard Fund for Political Economy (Research Grant), UVA 2019-2020. \$29,708.

Batten Research Grant Program, UVA 2018-2019, joint with Federico Ciliberto and Ekaterina Khmel-nitskaya. \$20,000.

Bankard Fund for Political Economy (Research Grant), UVA 2018-2019, with Federico Ciliberto. \$59,777.

College of Arts and Social Science grant, UVA 2018, joint with Federico Ciliberto. \$3,000.

College of Arts and Social Science grant, UVA 2017, joint with Federico Ciliberto. \$3,000.

Faculty Research Grant, Australian National University, 2012-2013. AU\$7,500.00.

Visiting Research Fellowship, Collegio Carlo Alberto, 2010.

Faculty Research Grant, Australian National University, 2010-2011. AU\$10,000.00.

Research Fellow, Penn State University, Fall 2007-Spring 2010, sponsored by NSF grant for Isabelle Perrigne and Quang Vuong.

Summer Research Fellowship, Penn State University, 2007.

Graduate Fellowship, Indian Statistical Institute, Fall 2002- Spring 2004.

Teaching

University of Virginia:

Auction Theory and Practice (UG: F-2015, S-2016, F-2017, F-2019, S-2019, F-2020, S-2020, F-2020, S-2021).

Intermediate Microeconomics (UG: F-2016, F-2017).

Empirical Industrial Organization (G: S-2017, S-2018, S-2019, S-2020, S-2021 co-teaching with Federico Ciliberto).

Empirical Industrial Organization (UG: S-2018, S-2019, S-2020, S-2021 co-teaching with Federico Ciliberto).

University of Chicago:

Introduction to Industrial Organization (UG: Winter 2014, Spring 2014, Winter 2015, Spring 2015).

Mechanism Design (UG: Spring 2014, Spring 2015).

Australian National University:

Microeconomics (UG Honors: Fall 2010, Fall 2011, Fall 2012).

Applied Microeconometrics (G: Fall 2011, Fall 2012, Fall 2013).

Case Studies in Applied Economics (G: 2013).

Pennsylvania State University: Microeconomics (UG: many semesters)

PhD. Advising

Student's Name	My Role	Graduation Yr.	Field	First Placement
Benjamin Leyden ^{†,‡}	3 rd reader	May, 2018	Empirical IO	Cornell University, Dyson
Cailin Slattery ^{‡,♣,★}	3 rd reader	May, 2019	Empirical IO	Columbia University, GSB
Alexander Gross [♣]	2 nd reader	May, 2020	Empirical IO	DOJ, Antitrust Division
Emily Cook ^{‡,♣}	3 rd reader	May, 2020	Education & IO	Tulane University
Ekaterina Khmel'nitskaya ^{‡,♣}	2 nd reader	May, 2021	Empirical IO	UBC, Sauder School of Business
Gayoung Ko ^{b,‡}	2 nd reader	May, 2022	Empirical IO	
Jiafeng Wu	2 nd reader	May, 2022	Empirical IO	
Moonju Cho	2 nd reader	TBD	Empirical IO	
Dennis J. Campbell	3 rd reader	TBD	Empirical IO	
Yang Yu ^b	2 nd reader	TBD	Empirical IO	
Anirban Chattopadhyaya	2 nd reader	TBD	Empirical IO	

Awards: ♣ Tipton R. Snavely Best Thesis Award. † Snavely Award for Best Dissertation. ‡ Snavely Prize for Best Dissertation Proposal. ★ National Tax Association Dissertation Award. ^b Tipton Snavely Award for Outstanding Summer Research.

Undergraduate Advising

1. University of Virginia (Distinguished Major Program Thesis Advisor)

(a) Chenchen (Sabrina) Peng: graduated May 2020.

Awards: Best paper awarded at the Annual International Atlantic Economic Society Undergraduate Paper Competition.

Best Distinguished Majors Thesis Award.

(b) Chang (Margaret) Cheng: graduated May 2021.

(c) Lam K. Bui: expected graduation May 2022.

2. Australian National University:

(a) Lev Yulin: graduated 2012.

(b) Jabulani Bulle: graduated 2012.

National/International Services

Conference Session Organizer

INFORMS Annual Meetings 2020 (empirical auction session).

Conference Session Invited Discussant

IIOC, NYU Crite, Southern Economic Association Conference, FTC Microeconomic Conference,

Referee

Quarterly Journal of Economics, Econometrica, Journal of Political Economy, Review of Economic Studies, American Economic Review, International Journal of Industrial Organization, Journal of Industrial Economics, Economic Journal, Management Science, American Economic Journal: Micro, American Economic Journal: Policy, Economic Theory, International Journal of Game Theory, Journal of Applied Econometrics, Journal of Econometrics, Journal of Business & Economic Statistics, Journal of Economic and Business Organization, Quantitative Economics, RAND Journal of Economics, Review of Economics and Statistics, Review of Industrial Organization, Review of Law and Economics, Southern Economic Journal, Asia-Pacific Journal of Risk and Insurance.

Grant Proposal Review

Czech Science Foundation.

University/Department Services at UVA

1. Co-organizer of Bankard Workshop in IO/Theory Committee, Spring 2019; 2019-2021.
2. Bankard Workshop in Applied Microeconomics, Fall 2016- Spring 2017.
3. Member of the Distinguish Major Program Committee, Spring 2016.
4. Junior Recruiting Committee, Fall 2016.
5. Member of the Core Exam committee for Econometrics, 2017, 2018, 2020, 2021.
6. Organizer of the Junior Lunch Seminar, 2017.
7. Organized reading group for graduate student, 2018, 2019.