

# FEDERICO A. BUGNI

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- CONTACT INFORMATION Department of Economics  
Duke University  
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- PROFESSIONAL EXPERIENCE **Professor of Economics**, Duke University. July 2020 - present.  
**Director of Graduate Studies**, Duke University. July 2018 - present.  
**Associate Professor of Economics**, Duke University. July 2013 - June 2020.  
**Kathleen Kaylor and G. Richard Wagoner, Jr. Assistant Professor of Economics**, Duke University. July 2012 - July 2013.  
**Assistant Professor of Economics**, Duke University. July 2009 - June 2013.
- EDUCATION **Ph.D. in Economics**, Northwestern University, Evanston, IL. December 2008.  
Dissertation: *Essays on Inference in Partially Identified Models*.  
Committee: Joel L. Horowitz (chair), Rosa L. Matzkin, and Elie Tamer.  
**M.A. in Economics**, Northwestern University, Evanston, IL. July 2005.  
**M.A. in Economics**, Universidad de San Andrés, Argentina. October 2002.  
**B.A. in Economics**, Universidad de San Andrés, Argentina. October 2001.
- RESEARCH INTERESTS Theoretical econometrics, partial identification, moment (in)equalities, randomized controlled experiments, and dynamic discrete choice models.
- PUBLISHED & FORTHCOMING PAPERS
1. “Goodness-of-Fit Tests For Functional Data,” joint with P. Hall, J. L. Horowitz and G. R. Neumann, *Econometrics Journal*, Royal Economic Society, vol. 12, no. S1, (2009), pp. S1-S18.
  2. “Bootstrap Inference in Partially Identified Models Defined by Moment Inequalities: Coverage of the Identified Set,” *Econometrica*, vol. 78, no. 2, (2010), pp. 735-753.
  3. “Distortions of Asymptotic Confidence Size in Locally Misspecified Moment Inequality Models”, joint with I. A. Canay and P. Guggenberger, *Econometrica*, vol. 80, no. 4, (2012), pp. 1741-1768.
  4. “Child Labor Legislation: Effective, Benign, Both, or Neither?”, *Cliometrica*, vol. 6, no. 3, (2012), pp. 223-248.
  5. “Specification Test for Missing Functional Data”, *Econometric Theory*, vol. 28, no. 5, (2012), pp. 959-1002.
  6. “Approximating High Dimensional Dynamic Models: Sieve Value Function Iteration”, with P. Arcidiacono, P. Bayer, and J. James, *Advances in Econometrics*, vol. 31, (2013), pp. 45-95, Edited by E. Choo and M. Shum.
  7. “Specification Test for Partially Identified Models defined by Moment Inequalities”, with I. A. Canay and X. Shi. *Journal of Econometrics*, vol. 185, no. 1, (2012), pp. 259-282.

8. “A Comparison of Inferential Methods in Partially Identified Models in Terms of Error in Coverage Probability”, *Econometric Theory*, vol. 32, no. 1, (2016), pp. 187-242.
9. “Identification and Inference on Regressions with Missing Covariate Data”, with E. Aucejo and V. J. Hotz, *Econometric Theory*, vol. 33, no. 1, (2017), pp. 196-241.
10. “Inference for Subvectors and Other Functions of Partially Identified Parameters in Moment Inequality Models”, with I. A. Canay and X. Shi, *Quantitative Economics*, vol. 8, no. 1, (2017), pp. 1-38.
11. “Inference under Covariate-Adaptive Randomization”, with I. A. Canay and A. M. Shaikh, *Journal of the American Statistical Association (Theory & Methods)*, vol. 113, no. 524, (2018), pp. 1741-1768.
12. “Inference in dynamic discrete choice problems under local misspecification”, with T. Ura. *Quantitative Economics*, vol. 10, no. 1, (2019), pp. 67-103.
13. “Inference under Covariate-Adaptive Randomization with Multiple Treatments”, with I. A. Canay and A. M. Shaikh. *Quantitative Economics*, vol. 10, no. 4, (2019), pp. 1747-1785.
14. “Inference in Partially Identified Many Moment Inequality Models via Lasso”, with M. Caner, A. B. Kock, and S. Lahiri. *Journal of Statistical Planning and Inference*, vol. 206, no. 524, (2020), pp. 211-248.
15. “Testing Continuity of a Density via g-order statistics in a Regression Discontinuity Design”, with I. A. Canay. Accepted for publication at the *Journal of Econometrics* in March 2020.
16. “On the iterated estimation of dynamic discrete choice games”, with J. Bunting. CeMMAP working paper 13/18. Accepted for publication in the *Review of Economic Studies* in May 2020.

WORKING  
PAPERS

17. “Permutation Tests for Equality of Distributions of Functional Data”, with J. L. Horowitz. Revision requested by the *Journal of Applied Economics* in May 2020.
18. “Permutation-based tests for discontinuities in event studies”, with J. Li. Submitted on November 2020.
19. “Testing homogeneity in dynamic discrete choice games in finite samples”, with J. Bunting and T. Ura. Submitted on October 2020.
20. “Subvector inference in partially identified moment inequality models with many moment inequalities”, with A. Belloni and V. Chernozhukov.

ONGOING  
RESEARCH  
PROJECTS

21. “Inference under covariate-adaptive randomization with imperfect compliance”, with M. Gao.
22. “Clustered standard errors in experiments with covariate-adaptive randomization”, with I. A. Canay, V. Kamat, A. M. Shaikh, and M. Tabord-Meehan.
23. “Testing conditional stochastic dominance via g-order statistics”, with I. A. Canay and Deborah Kim.
24. “Inference in dynamic discrete choice games under steady state”, with J. Bunting.

- 2021 *Scheduled:* University of Illinois at Urbana-Champaign. Syracuse University. Simon Fraser University. University of Washington Seattle. University College London. University of Toulouse.
- 2020 Montreal Econometrics Seminar (Concordia, McGill, University of Montreal, and UQAM). Econometric Society World Congress, Northwestern University.
- 2019 Econometric Society North American Winter Meeting in Atlanta. Princeton University. University of Notre Dame. Universidad de San Andrés, Buenos Aires, Argentina. Econometrics Summer Workshop at Warwick University. Econometric Society North American Summer Meeting in Seattle. CEME Conference for Young Econometricians, University of California Los Angeles. Microeconometrics Class of 2019 Conference, Duke University. UCL/Vanderbilt University Conference. 2019 Triangle Econometrics Conference.
- 2018 Hong Kong University of Science and Technology, Hong Kong. Singapore Management University, Singapore. Universidad de San Andrés, Buenos Aires, Argentina. Cornell University. UCL/Vanderbilt University Conference. Inference on Incomplete Models at Northwestern University. North American Summer Meeting of the Econometric Society, University of California Davis. CEME Conference for Young Econometricians, Duke University. Conference on Incomplete Models at Northwestern University. Microeconometrics Class of 2018 Conference, Duke University. Meeting of the Southern Economic Association, Washington DC. 2018 Triangle Econometrics Conference.
- 2017 Cowles Foundation. University of Toronto. 12th Tilburg Institute Conference on Inference Issues in Econometrics Conference, Amsterdam. Simon Fraser University. CEME Conference for Young Econometricians, University of California Los Angeles. Microeconometrics Class of 2017 Conference, Duke University. Boston University. Vanderbilt University. 2017 Triangle Econometrics Conference.
- 2016 Johns Hopkins University. Ohio State University. Georgetown University. University of Chicago. Northwestern University. Regression Discontinuity Designs: Theory and Applications conference in Ann Arbor, Michigan. Recent Advances in Econometrics conference in Toulouse, France. Simon Fraser University. CEME Conference for Young Econometricians, Duke University. Columbia University. 2016 Triangle Econometrics Conference.
- 2015 Clarence Tow Econometrics Conference at University of Iowa. University of British Columbia. Simon Fraser University. Econometric Society World Congress in Montreal, Canada. CEME Conference on Inference in Nonstandard Problems, Cornell. University of Wisconsin. New York University. 2015 Triangle Econometrics Conference.
- 2014 Humboldt-Universität zu Berlin. University College London. London School of Economics. Northwestern University. CEME Conference on Inference in Nonstandard Problems, Princeton. 2014 Triangle Econometrics Conference.
- 2013 University of Texas Austin, Duke University Statistics Department. Mathematical Statistics of Partially Identified Objects, Oberwolfach, Germany. University of California San Diego. Stanford University. Cowles Conference on Partial Identification, Weak Identification, and Related Econometric Problems. Meeting of the Southern Economic Association, Tampa. Brown University. 2013 Triangle Econometrics Conference. First Conference in Econometric Theory at Universidad de San Andrés, Buenos Aires, Argentina. Conferencia de Graduados del Departamento de Economía at Universidad de San Andrés, Buenos Aires, Argentina.

- 2012 Econometric Society North American Winter Meeting in Chicago. University of California Los Angeles. Junior Festival on New Developments in Microeconometrics, Northwestern University. Indiana University - Purdue University Indianapolis. University of California Berkeley. University of California Davis. Yale University. Ohio State University. Conference of the International Society for NonParametric Statistics (IS-NPS), Greece. Econometric Society North American Summer Meeting in Evanston. University of Rochester. 2012 Triangle Econometrics Conference.
- 2011 Econometric Society North American Winter Meeting in Denver. University of Virginia. Seoul National University, Korea. University of Montreal. 2011 CeMMAP Conference in honor of Joel Horowitz's 70th birthday in London, UK. Joint Statistical Meetings, Miami. University of Toronto. 2011 Triangle Econometrics Conference.
- 2010 North American Winter Meeting of the Econometric Society, Atlanta. Harvard University. Econometric Society World Congress in Shanghai, China. Young Economists Jamboree in Econometrics, Duke University. Pennsylvania State University. Canadian Econometrics Study Group, Vancouver, Canada. 2010 Triangle Econometrics Conference. Princeton University.
- 2009 University of Michigan. Latin American Meeting of the Econometric Society, Buenos Aires, Argentina. 2009 Triangle Econometrics Conference.
- 2008 Queens University. University College London. University of Pennsylvania. Brown University. University of California Los Angeles. Columbia University. New York University. Yale University. Duke University.
- 2007 Semiparametric and Nonparametric Methods in Econometrics, Oberwolfach, Germany. North American Summer Meeting of the Econometric Society, Duke University.
- 2001 Argentine Association of Political Economy, Buenos Aires, Argentina.

FELLOWSHIPS  
& AWARDS

- 2017 *Multa Scripsit* award from *Econometric Theory*.
- 2017 NSF Grant SES-1729280 for 08/15/2017-7/31/2019. Project title: "Econometric Methods for Models with Covariate Adaptive Randomization and Partial Identification". Total award amount \$163,770.
- 2014 NIH Grant 40-4153-00-0-85-399 for 07/01/2014-06/30/2017. Project title: "The Long-Term Impact of Income Transfers During Childhood", joint with Ana Aizer, Joseph Ferrie, Shari Eli, Bo Honoré, and Adriana Lleras-Muney. Total award amount \$968,391.
- 2012 Awarded the *Kathleen Kaylor and G. Richard Wagoner, Jr. Assistant Professor in Economics* chair at Duke University.
- 2011 NSF Grant SES-1123771 for 8/15/2011-7/31/2014. Project title: "Collaborative Research: Extending the Scope of Inference in Partially Identified Models", joint with Ivan A. Canay. Total award amount \$244,082.
- 2011 NSF Grant SES-1124193 for 9/15/2011-8/31/2014. Project title: "Large State Space Issues in Dynamic Models", joint with Peter S. Arcidiacono and Patrick J. Bayer. Total award amount \$341,114.
- 2007 Dissertation Year Fellowship. Northwestern University.
- 2006 Robert Eisner Memorial Fellowship. Northwestern University.

2003-04 Northwestern University Fellowship. Northwestern University.

2000 Graduation Gold Medal. Universidad de San Andrés, Buenos Aires, Argentina.

2000 Jagdish Bhagwati Award. Universidad de San Andrés, Buenos Aires, Argentina.

1997-00 Merit Scholarship. Universidad de San Andrés, Buenos Aires, Argentina.

## TEACHING

### **Duke University**, Durham, NC

- Statistical Foundations of Econometrics and Data Science (Econ 104 - Undergraduate): Fall 2020.
- Graduate Econometrics I (Econ 703 - Graduate): Fall 2009, Fall 2010 (Ph.D. and M.A.), Fall 2011, Fall 2012, Fall 2013, Fall 2014, Fall 2015, Fall 2016, Fall 2017, and Fall 2018.
- Topics course: Nonparametric and Semiparametric Estimation (Econ 883.06 - Graduate): Fall 2016, Fall 2017, Fall 2018, Fall 2019, and Fall 2020.
- Nominal instructor for Econometrics Workshop (Econ 903.08 - Graduate): 2016, 2017, 2018, 2019, and 2020.
- Nominal instructor for First-year Intro to Research Workshop (Econ 704 - Graduate): 2018, 2019, and 2020.
- Topics course: Identification (Econ 883.04 - Graduate): Spring 2012, Fall 2012, and Spring 2015.
- Independent Research Study (Econ 395E) for Dohun Kim (M.A. student): Spring 2014.
- Independent Research Study (Econ 593) for Zhuoli Chen (M.A. student): Fall 2018.
- Independent Research Study (Econ 593) for Mensgi Gao (M.A. student): Spring 2019.

### **Northwestern University**, Evanston, IL

- Lecturer: Introductory Econometrics for incoming Ph.D. students, Summer 2006 and Summer 2007.
- Teaching Assistant: Graduate Econometrics, Spring 2006 and Spring 2007.

### **Universidad de San Andrés**, Buenos Aires, Argentina

- Lecturer: Recursive Methods in Economics, M.A. in Economics, 2003.
- Lecturer: Quantitative Methods, M.A. in Finance, 2003.
- Teaching Assistant: Microeconomics, B.A. in Economics, 2002.
- Teaching Assistant: International Economics, B.A. in Economics, 2001-03.
- Teaching Assistant: Econometrics, B.A. in Economics, 2001-03.
- Teaching Assistant: Economic History, B.A. in Economics, 2000.

• **Main advisor**

- Takuya Ura (co-chaired with V. Joseph Hotz), 2016 Ph.D. in Economics. Placement: University of California, Davis.
- Jackson Bunting, 2017 Ph.D. Candidate in Economics, 2021 Ph.D. in Economics: Placement: Texas A&M University.

• **Secondary advisor**

- Jonathan James, 2011 Ph.D. in Economics. Placement: Cleveland Federal Reserve Board.
- Esteban M. Aucejo, 2012 Ph.D. in Economics. Placement: London School of Economics.
- Patrick Coate, 2013 Ph.D. in Economics. Placement: University of Michigan Population Studies Center.
- Vladislav Slanchev, 2013 Ph.D. in Economics. Placement: Postdoctoral Associate at Duke University.
- Erik Vogt, 2014 Ph.D. in Economics. Placement: New York Federal Reserve Board.
- Irving A. De Lira, 2015 Ph.D. in Economics. Placement: Banco de Mexico.
- Yichong Zheng, 2016 Ph.D. in Economics. Placement: Singapore Management University.
- Nicolas-Aldebrando Benelli, 2017 Ph.D. in Economics. Placement: French ministry.
- Luis E. Candelaria, 2017 Ph.D. in Economics. Placement: University of Warwick.
- Fu Ouyang, 2017 Ph.D. in Economics. Placement: Nankai University and University of Queensland.
- Binghzi (Ben) Zhao, 2017 Ph.D. in Economics. Placement: Numeric Investors.
- Yuan Xue, 2018 Ph.D. in Economics. Placement: Quora.
- Peter Horvath, 2020 Ph.D. in Economics.
- Zhao Liu, 2020 Ph.D. in Economics. Placement: Warwick Business School.
- Wen Wang, 2020 Ph.D. in Economics. Placement: Hong Kong University of Science and Technology.
- Congshan Zhang, 2020 Ph.D. in Economics. Placement: Research Scientist at Facebook.
- Rui Chen, 2020 Ph.D. in Economics. Placement: Amazon.
- Leonardo Salim Saker Chaves, 2018 Ph.D. Candidate in Economics. *Degree in progress.*
- Jinyue Bei. *Degree in progress.*
- JoonYup Park. *Degree in progress.*

- **Referee:** *Computational Statistics and Data Analysis, Econometrica, Econometrics, Empirical Economics, National Science Foundation, Journal of Econometrics, Journal of Business and Economic Statistics, Journal of Nonparametric Statistics, Operations Research, Quantitative Economics, The Econometrics Journal, The Review of Economic Studies, and The Review of Economics and Statistics.*

- **Associate Editor**

- *Journal of Econometrics* during 2019-21.
- *Quantitative Economics* during 2016-21.
- *Journal of Business and Economic Statistics* during 2019-21.
- *The Econometrics Journal* during 2012-24.

- **Conference and Workshop Organization**

- Co-organized the NBER Conference on Econometrics and Mathematical Economics (CEME) for Young Econometricians in 2016, 2017, 2018, and 2019.
- Co-organized the Triangle Econometrics Conference in 2014, 2015, 2016, 2017, and 2019.
- Co-organized the Microeconometrics Class of 2017 Conference.
- Organized the Econometrics Seminars at Duke University in 2014-19.
- Organized the Reading Group in Microeconometrics at Duke University in 2012-14.

- **Program Organizing Committee:** 2009 Latin American Meeting of the Econometric Society, 2012 North-American Meetings of the Econometric Society, 2015 Econometric Society World Congress, 2017 Annual Conference of the International Association of Applied Econometrics (IAAE).

- **Other duties**

- Chair of the Senior Recruiting Committee in Economics at Duke University in 2019-20.
- Member of the Senior Recruiting Committee in Economics at Duke University in 2015-16.
- Member of the Junior Recruiting Committee in Economics at Duke University in 2010-12.
- Participated in the process of admissions to the Ph.D. program in Economics at Duke University in 2009, 2010, 2011, 2012, and 2016.
- Member of the Arts & Sciences Council Faculty Research Committee at Duke University in 2017-18.
- Member of the Executive Committee of the Department of Economics at Duke University in 2017-18.
- Member of the Royal Economics Society since 2016.

BIRTHDAY & CITIZENSHIP      June 1, 1979. Argentinian and U.S. citizen.

MARITAL STATUS      Married, 1 son (Benjamin), and 1 daughter (Emilia).