

Feng Yao

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Website: <http://community.wvu.edu/~feyao/>
Personal: Born in 1977, with two daughters.

Education

Ph.D., Economics, Oregon State University (2004).

B.A., Trade and Economics, Renmin University, *P.R. China* (1999).

Dissertation

Title: “Three Essays on Nonparametric and Semiparametric Regression Models.”

Chair: Professor Carlos Martins-Filho.

Fields: *Primary:* Econometrics, Applied Econometrics. *Secondary:* Industrial Organization.

Employment History

- Chair, Economics, West Virginia University, 2021 to present.
- Professor, Economics, West Virginia University, 2019 to present.
- Associate Professor, Economics, West Virginia University, 2013 to 2019.
- Assistant Professor, Economics, West Virginia University, 2008 to 2013.
- Assistant Professor, Economics, The Chinese University of Hong Kong, 2007 to 2008.
- Assistant Professor, Economics, University of North Dakota, 2004 to 2007.
- Visiting Scholar, Economics, The Chinese University of Hong Kong, 2015-2023.
- Visiting Professor, China Center for Special Economic Zone Research, Shenzhen University, 2016-2022.
- Yunshan Visiting Scholar, Guangdong University of Foreign Studies, 2014-2020.
- Research Fellow, MTID, International Food Policy Research Institute, 2012 to 2013.
- Graduate Teaching Assistantship, Economics, Oregon State University, 1999-2004.

Publications

1. “A note on the use of V and U statistics in nonparametric models of regression” (with C. Martins-Filho), *Annals of the Institute of Statistical Mathematics*, 58(2), 389-406, 2006.
2. “Estimation of value-at-risk and expected shortfall based on nonlinear models of return dynamics and extreme value theory” (with C. Martins-Filho), *Studies in Nonlinear Dynamics & Econometrics*, 10(2), Article 4, 2006.

3. "Nonparametric frontier estimation via local linear regression" (with C. Martins-Filho), *Journal of Econometrics*, 141(1), 283-319, 2007.
4. "A smooth nonparametric conditional quantile frontier estimator" (with C. Martins-Filho), *Journal of Econometrics*, 143(2), 317-333, 2008.
5. "Nonparametric regression estimation with general parametric error covariance" (with C. Martins-Filho), *Journal of Multivariate Analysis*, 100(3), 309-333, 2009.
6. "The effect of advertising on collusion in the U.S. brewing industry: a trigger strategy approach," *Atlantic Economic Journal*, 40(1), 21-37, 2012.
7. "Kernel based estimation of semiparametric regression in triangular systems" (with C. Martins-Filho), *Economics Letters*, 115(1), 24-27, 2012.
8. "Efficient semiparametric instrumental variable estimation under conditional heteroskedasticity," *Journal of Quantitative Economics*, 10(1), 32-55, 2012.
Appendix to: Efficient semiparametric instrumental variable estimation under conditional heteroskedasticity.
9. "A nonparametric R-square test for the presence of relevant variables" (with A. Ullah), *Journal of Statistical Planning and Inference*, 143(9), 1527-1547, 2013.
10. "Semiparametric stochastic frontier estimation via profile likelihood" (with C. Martins-Filho), *Econometric Reviews*, 34(4), 413-451, 2015.
Technical supplement to "Semiparametric stochastic frontier estimation via profile likelihood" (with C. Martins-Filho).
11. "High order conditional quantile estimation based on nonparametric models of regression" (with C. Martins-Filho and M. Torero), *Econometric Reviews*, 34 (6-10), 906-957, 2015.
12. "An asymptotic characterization of finite degree U-statistics with sample size-dependent kernels: applications to nonparametric estimators and test statistics" (with C. Martins-Filho), *Communications in Statistics-Theory and Methods*, 44, 3251-3265, 2015.
13. "Efficient kernel-based semiparametric IV estimation with an application to resolving a puzzle on the estimates of the return to schooling" (with J. Zhang), *Empirical Economics*, 48, 253-281, 2015.
Technical supplement to: Efficient kernel-based semiparametric IV estimation with an application to resolving a puzzle on the estimation of the return to schooling (with J. Zhang).
14. "The debt-equity choice of Japanese firms" (with T. T. Chong and T. Y. Law), *the International Journal of Business and Society*, Vol. 17, No. 2, 167-182, 2016.
15. "Confucius Institute's effects on international travel to China: do cultural difference or institutional quality matter?" (with D. Lien and F. Zhang), *Applied Economics*, 49, 3669-3683, 2017.
16. "Nonparametric estimation of conditional value-at-risk and expected shortfall based on extreme value theory" (with C. Martins-Filho and M. Torero), *Econometric Theory*, 34, 23-67, 2018.
17. "Does Economic Freedom Affect The Production Frontier? A Semiparametric Approach With Panel Data" (with F. Zhang and J. Hall), *Economic Inquiry*, 56, 1380-1395, 2018.

18. "Estimation of a smooth coefficient zero-inefficiency panel stochastic frontier model: A semiparametric approach" (with T. Wang, J. Tian and S. C. Kumbhakar), *Economics Letters*, 166, 25-30, 2018.
19. "Semiparametric smooth coefficient stochastic frontier model with panel data" (with S. C. Kumbhakar and F. Zhang), *Journal of Business & Economic Statistics*, 37:3,556-572, 2019.
20. "Estimation of a partially linear additive model with generated covariates" (with C. Martins-Filho and X. Geng), *Journal of Statistical Planning and Inference*, 208, 94-118, 2020.
21. "An investigation of Confucius Institute's effects on China's OFDI via cultural difference and institutional quality" (with C. Xu, F. Zhang and Y. Wang), *Journal of Asian Business Studies*, 14 (3), 241-263, 2020.
22. "Does high debt ratio influence Chinese firms' performance? A semiparametric stochastic frontier approach with zero inefficiency" (with J. Tian and T. Wang), *Empirical Economics*, 61, 587-636, 2021.
23. "A nonparametric test of significant variables in gradients" (with T. Wang), *Econometric Theory*, 37, 959-1003, 2021.
24. "A new estimator of a jump discontinuity in regression" (with C. Martins-Filho and S. Xie), *Economics Letters*, 218, 2022
25. "Efficient estimation in a varying coefficient panel data model with different smoothing variables and fixed effect" (with Q. Lu, Y. Sun and J. Zhang), accepted at *Advances in Econometrics*, Volume in honor of Subal Kumbhakar, 2023.
26. "A flexible stochastic production frontier model with panel data" (with T. Wang and S. C. Kumbhakar), accepted at *Journal of Applied Econometrics*.
27. "Excessive external borrowing in China: evidence from a nonparametric threshold regression model with fixed effects" (with J. Tian and T. Wang), accepted at *Mathematics*..

Completed Manuscripts

1. "Confucius Institute's Effects on China's Higher Education Exports: A Perspective from Cultural Difference and Institutional Quality" (with D. Lien and F. Zhang).
2. "Operational Efficiency and Stock Performance: New Evidence from a Semiparametric Panel Model" (with T. Wang, Z. Wang, S. C. Kumbhakar and T. Jiang).
3. "Understanding Real Estate Matches through a Semiparametric Panel Model of the Matching Function" (with T. Wang and A. Nowak).
4. "Estimating Corporate Investment Efficiency with Bias Correction: A Semiparametric Panel Model Approach" (with T. Wang, Z. Wang and S. C. Kumbhakar), revise and resubmit at *Journal of the Royal Statistical Society: Series A*.

Work in Progress

1. "Nonparametric estimation of smooth coefficients in fixed-effect panel data models" (with T. Wang and J. Cai).
2. "An estimator of a jump discontinuity in regression based on generated observations" (with C. Martins-Filho).

3. “Efficient estimation of nonparametric seemingly unrelated regression models” (with C. Martins-Filho and Y. Wang).
4. “Efficient estimation of partially linear models under nonparametric endogeneity” (with C. Martins-Filho and J. Zhang).
5. “A nonparametric partial R-square test for omitted variables in additive models” (with A. Ullah, T. Wang).
6. “Semiparametric estimation of generalized additive models” (with C. Martins-Filho).
7. “Maximum likelihood estimation of multiplicative fixed effects dynamic panel data models with short time periods” (with C. Hsiao).
8. “Forecasting several North Dakota macroeconomic variables-an application of Bayesian vector autoregressions.”

Grants and Honors

- Teaching Award, Department of Economics, Chambers College of Business and Economics, West Virginia University, 2019.
- Research Award, Department of Economics, Chambers College of Business and Economics, West Virginia University, 2018, 2021, 2023.
- Education Ministry Youth Foundation Project (15YJC630137). Research on the influence and mechanism of political gene on the rent-seeking behavior of enterprises.
- College of Business and Economics Summer Research Grant Program, West Virginia University, 2017-2020.
- Kennedy-Vanscoy fund for faculty development, College of Business and Economics, West Virginia University, \$7000, 2010.
- Funded research “Econometric model for the evolution of commodity price returns,” International Food Policy Research Institute, 2010.
- Funded research “Revising and expanding the Volatility Warning Tool in the Food Security Portal,” International Food Policy Research Institute, 2024.
- West Virginia faculty travel grant, 2010-2019.
- RGC Research Direct Grant, The Chinese University of Hong Kong, 39,000 HK\$ (2007-2008).
- Summer Research Grant: College of Business and Public Administration, University of North Dakota, Summer 2006.
- Travel Grant: the Senate Scholarly Activities Committee(SSAC), Office of Research & Program Development, University of North Dakota, Summer 2005, Fall 2005.

Fellowships and Scholarships

- The D. Barton DeLoach Distinguished Graduate Fellowship in Economics, Oregon State University (2003-2004).
- Oregon State University Foundation Fellowship Tuition Support Scholarship (2003-2004).

- The D. Barton DeLoach Graduate Scholarship in Economics, Oregon State University (2002-2003).
- Emery Castle Graduate Scholarship in Economics, Oregon State University (2001-2002).
- The Emery Castle Award in Economics, Oregon State University (2001).

Conference Participation and Academic Visits

- 2024 7th International Conference on Econometrics and Statistics (EcoSta 2024), Hybrid Conference, Beijing Normal University, Beijing, China 17-19 July, 2024.
- 2023 Invited presentation, Economics Department, The Chinese University of Hong Kong, Hong Kong, Aug. 17, 2023.
- 2023 Asian Meeting of the Econometric Society in East and Southeast Asia (AMES), National Technological University, Singapore, July 28-30, 2023.
- 2022 Shenzhen University Youth Scientists online forum, December 6, 2022.
- 2022 Asian Meeting of the Econometric Society in China, Shenzhen, China, June 24, 2022.
- 2022 International Conference on Rural Development and entrepreneurship, Hebei University, September 24, 2022.
- 2022 Invited presentation at KeyBank, Cleveland, OH, USA, June 14, 2022.
- 2021 Invited presentation, Economics Department, University of Colorado, Boulder, Oct. 22, 2021.
- 2021 Invited presentation in the 5th Dongbei Econometrics Workshop, the Institute for Advanced Economic Research, Dongbei University of Finance and Economics, June 25-27, 2021.
- 2021 4th International Conference on Econometrics and Statistics (EcoSta 2021), organize and present in Session EO275: Nonlinearity in Applied Econometrics, Virtual Conference, HKUST, Hong Kong, 24-26 June 2021.
- 2019 Asian Meeting of Econometric Society, Xiamen University, Xiamen, China, June 14-16 2019.
- 2019 Organize and present in the session Nonlinearity in Panel Data Analysis (EO095), Third International Conference on Econometrics and Statistics (ECOSTA 2019). National Chung Hsing University, June 25-27, 2019.
- 2018 China Meeting of Econometric Society, Fudan University, Shanghai, China, June 15-17 2018.
- 2018 Organize and present in the session Nonlinearity in Regression Models (EO224), Second International Conference on Econometrics and Statistics (ECOSTA 2018). The City University of Hong Kong, Hong Kong, June 19-21, 2018.
- 2017 Asian Meeting of the Econometric Society, Chinese University of Hong Kong, Hong Kong, June 3-5 2017.
- 2017 China Meeting of Econometric Society, Wuhan University, Wuhan, China, June 9-11 2017.

- 2016 China Meeting of Econometric Society, Southwestern University of Finance and Economics, Chengdu, China, June 25 - 27 2016.
- 2016 Eastern Economic Association Annual Meetings, Washington, D.C., Feb. 25-28, 2016.
- 2014 Chinas Special Economic Zone Forum - A Symposium on Comparison of Special Economic Zones, November 21st-23rd, 2014, Shenzhen, China.
- Invited seminar, Xiamen University, The School of Economics, Nov. 14, 2014.
- The second China Meeting of the Econometric Society, Xiamen, China, June 25-27, 2014.
- Asian Meeting of the Econometric Society 2013, "Nonparametric estimation of conditional value-at-risk and expected shortfall based on extreme value theory," Singapore, August 2-4, 2013.
- New York Camp Econometrics VIII, "Efficient kernel-based semiparametric IV estimation with an application to resolving a puzzle on the estimates of the return to schooling," Bolton Landing, NY, April 5-7, 2013.
- Midwest Econometrics Group Meeting 2012, "A nonparametric R-square test for the presence of relevant variables," Lexington, KY, USA, September 28-29, 2012.
- Invited seminars at University of Miami Department of Biostatistics "A nonparametric R-square test for the presence of relevant variables," and Department of Economics "Nonparametric estimation of conditional value-at-risk and expected shortfall based on extreme value theory", Miami, FL, USA, October 19, 2012.
- New York Camp Econometrics VII, "High order conditional quantile estimation based on nonparametric models of regression," Cooperstown, NY, April 13-15, 2012.
- "Modelling Price Volatility and Food Security" at ZEF Bonn, Germany, May 1-5, 2012.
- Invited presentation to 2011 Summer International Econometrics Symposium at SWUFE in honor of A. Ullah, "A nonparametric partial R-square test for omitted variables," Chengdu, China, May 24, 2011.
- Western Economic Association International 86th Annual Conference, "Efficient semiparametric instrumental variable estimation under conditional heteroskedasticity," San Diego, CA July 2, 2011.
- "Efficient semiparametric instrumental variable estimation," Department of Economics Seminar, University of Colorado, Boulder, Boulder, CO, October 12, 2010.
- "Nonparametric stochastic frontier estimation via profile likelihood," 2010 Econometric Society World Congress, Econometric Society, Shanghai, China, August 21, 2010.
- "Efficient semiparametric instrumental variable estimation," Department of Economics seminar, West Virginia University, Morgantown, WV, March 12, 2010.
- "Nonparametric stochastic frontier estimation via profile likelihood," 2009 Meetings of the Midwest Econometrics Group, West Lafayette, IN, Purdue University, September 11-12, 2009.
- "Nonparametric Stochastic Frontier Estimation via Profile Likelihood," International Food Policy Research Institute, Washington, DC, August 12-15, 2009.

- Invited visit at Department of Economics, The Chinese University of Hong Kong, May-June, 2009.
- “Nonparametric Stochastic Frontier Estimation via Profile Likelihood,” SUNY Binghamton Economics and Statistics Seminar, March 6, 2009.
- Invited session: “Nonparametric stochastic frontier estimation via profile likelihood,” Hong Kong Economic Association Biennial Conference 2008 on Globalization and Economic Stability, Chengdu, China, Dec. 14-16, 2008.
- Invited session: “Nonparametric Regression Estimation with General Parametric Error Covariance,” Hong Kong Economic Association Biennial Conference 2008 on Globalization and Economic Stability, Chengdu, China, Dec. 14-16, 2008.
- “Nonparametric Regression Estimation with General Parametric Error Covariance,” Midwest econometric group 18th annual meeting, University of Kansas, Lawrence, KS, Oct. 17-18, 2008.
- “A Smooth Nonparametric Conditional Quantile Frontier Estimator,” Seventeenth Annual Meeting of the Midwest Econometrics Group, Saint Louis University, St. Louis, Missouri, October 12-13, 2007.
- “Nonparametric Regression Estimation with General Parametric Error Covariance” International Conference of the Forum for Interdisciplinary Mathematics, Lisbon-Tomar, Portugal, September, 2006.
- “A Smooth Nonparametric Conditional Quantile Frontier Estimator,” the Econometrics in Rio Conference, Getulio Vargas Foundation, Rio de Janeiro, Brazil, July 2006.
- Invited Session: “A Smooth Nonparametric Conditional Quantile Frontier Estimator,” Far Eastern Meeting of the Econometric Society, Tsinghua University, Beijing, China, July 9-12, 2006.
- “Nonparametric Regression Estimation with General Parametric Error Covariance,” Far Eastern Meeting of the Econometric Society, Tsinghua University, Beijing, China, July 9-12, 2006;
- “Nonparametric Regression Estimation with General Parametric Error Covariance,” Midwest Econometric Group Fifteenth Annual Meeting, Southern Illinois University, Carbondale, IL, October 14-15, 2005.
- “Estimation of Value-at-Risk and Expected Shortfall Based on Nonlinear Models of Return Dynamics and Extreme Value Theory,” 12th Global Finance Conference, Trinity College, Dublin, Ireland, June 27-29, 2005.
- “A Nonparametric Model of Frontiers,” The Econometrics and Empirical Economics (EEE) Programme of the 59th European Meeting of the Econometric Society (ESEM), Madrid, Spain, August 20-24, 2004.
- “Estimation of Value-at-Risk and Expected Shortfall Based on Nonlinear Models of Return Dynamics and Extreme Value Theory,” Latin American Meeting of the Econometric Society, Panamá City, Panamá, August 2003.
- “Estimation of Value-at-Risk and Expected Shortfall Based on Nonlinear Models of Return Dynamics and Extreme Value Theory,” 13th Annual Meeting of the Midwest Econometrics Group, University of Missouri, Columbia, MO, October 2003.

Teaching Experience

- Econ723: Dynamic Methods of Economics, West Virginia University, Spring 2013-2016.
- Econ721: Mathematical Economics, West Virginia University, Fall 2009-2013, 2017-2024.
- Econ725: Graduate Econometrics I, West Virginia University, Spring 2009-2024.
- Econ727: Graduate Econometrics III-time series, West Virginia University, Spring 2011, 2012, 2013.
- Econ201: Principles of Microeconomics, West Virginia University, Fall 2008-2017, Spring 2014-2019. TUFÉ 2017-.
- Econ201: Principles of Macroeconomics, West Virginia University, TUFÉ 2019-2022. 2024-.
- Busa201: The Survey of Economics, West Virginia University, Summer 2014-2018, Fall 2018-2020.
- GSCM 360: Supply Chain Analytics, West Virginia University, Spring 2021.
- Econ5101A/B/C: Review of Quantitative Methods, The Chinese University of Hong Kong, Summer 2014-2023.
- Econ2121b: Methods of Economic Statistics, The Chinese University of Hong Kong, Spring 2008.
- Econ3121b: Introductory Econometrics, The Chinese University of Hong Kong, Fall 2007.
- Econ5120: Econometric Theory and Applications, The Chinese University of Hong Kong, Fall 2007.
- Econ411: Empirical Methods in Economics II. University of North Dakota, Spring 2005, 2006, 2007.
- Econ410: Empirical Methods in Economics I. University of North Dakota, Fall 2004, 2005, 2006.
- Econ210: Introduction to Business and Economic Statistics, University of North Dakota, Summer 2005, Spring 2007.
- Econ201: Principles of Microeconomics. University of North Dakota, Fall 2004, Summer 2005, Fall 2005, 2006.
- Econ201: Introduction to Microeconomics. Oregon State University, Summer, Fall, Winter 2001, Spring, Fall 2002, Winter, Spring 2003.
- Econ202: Introduction to Macroeconomics. Oregon State University, Summer 2002, 2003.
- Econ200: Principles of Economics: Introduction to Economics. Econ201: Principles of Economics: Introduction to Microeconomics. Lane Community College, Summer 2003, Summer 2004.

Ph.D. Thesis supervision:

1. Durga Guatam: graduated from West Virginia University in 2015. Current position: Department of Economics, University of Richmond.
2. Fan Zhang, graduated from West Virginia University in 2017. Current position: Business Management Program, Ripon College.
3. Jinjing Tian, graduated from West Virginia University in 2018. Current position: Dongbei University of Finance and Economics, China.
4. Qinling Lu, graduated from West Virginia University in 2019. Current position: Key Bank.
5. Taining Wang, graduated from West Virginia University in 2019. Current position: Capital University of Economics and Business, China.
6. Corey Williams, graduated from West Virginia University in 2023. Current position: Shippensburgh University.
7. Auderta Amoako-Nuamah: in progress.
8. Committee members of PhD in-progress: Zejun Jiang, Chengyuan Hua.
9. Committee members of PhD graduates: Zhen Tian, Li Sun (Finance), Raluca Stan (Finance), Sumi Sharma, Sandeep Sharma, Sara Shouyuan Huang, Shishir Shakya, Alexander Cardazzi, Jiahao Gu (Finance), Shenru Li (Finance), Joylynn Pruitt, Colin Steitz, Shaun Gilyard, Bryan Khoo.

Professional Membership

- Econometric Society.

Service

- Associate Editor: *Economic Inquiry*, 2013-.
- Referee: *Journal of Econometrics*, *Econometric Theory*, *Journal of Business & Economic Statistics*, *Journal of Applied Econometrics*, *Econometric Reviews*, *Journal of Nonparametric Statistics*, *Statistics*, *American Journal of Agricultural Economics*, *Economic Inquiry*, *Economics Letters*, *Empirical Economics*, *the Bulletin of Economic Research*, *Mathematical Reviews*, *Insurance: Mathematics and Economics*, *Journal of Economics*, *Asian Economic Journal*, *Applied Mathematical Modelling*, *Computational Statistics and Data Analysis*, *Computers and Mathematics with Applications*, *National Science Foundation*, *Communications in Statistics - Simulation and Computation*, *Foundations and Trends in Econometrics*, *Singapore Economic Review*, *Journal of Population Economics*, *Econometrics*, *Journal of Statistical Computation and Simulation*, *Communications in Statistics - Theory and Methods*, *Statistica Sinica*.
- Promotion and Tenure Committee, 2014-2021, Scholarship, Honors, and Awards Committee, 2010-13, Undergraduate Studies committee, chair 2017-2021, member 2008-09, Graduate Studies committee, 2009-, Graduate Admission Committee, 2013-, College Promotion and Tenure Committee 2019-2021, West Virginia University.
- Seminar/Lecture committee, Library committee, The Chinese University of Hong Kong, 2007-2008.

- Hiring committee: Assistant Professor in Economics Department, University of North Dakota, 2005-2006.
- Scholarship committee: College of Business and Public Administration, University of North Dakota, 2005-2006.
- Event planning committee: College of Business and Public Administration, University of North Dakota, 2006-2007.

References

- Professor Carlos Martins-Filho, Department of Economics, 256 UCB, University of Colorado, Boulder, CO 80309-0256, USA. Tel: 1-303-492-4599. Email: carlos.martins@colorado.edu.
- Professor Aman Ullah, Department of Economics, University of California, Riverside, 4128 Sproul Hall, Riverside, CA 92521-0427, USA. Tel:1-951-827-1591. Email: aman.ullah@ucr.edu.
- Professor Subal C. Kumbhakar, Department of Economics, Binghamton University, Binghamton, NY 13902, USA. Tel: 1-607-777-4762. Email: kkar@binghamton.edu.