# CURRICULUM VITAE YANQIN FAN

Department of Economics, University of Washington, Box 353330, Seattle, WA 98195 Tel: (206) 543-8172 Fax: 206-685-7477 E-mail: fany88@u.washington.edu

#### POST-SECONDARY EDUCATION

Ph.D. in Economics at the University of Western Ontario, London, Ontario, Canada M.A. in Economics at the University of Western Ontario, London, Ontario, Canada D.G. in M.A. in Economics at the University of Western Ontario, London, Ontario, Canada D.G. in M.A. in Economics at the University of Western Ontario, London, Ontario, Canada D.G. in M.A. in Economics at the University of Western Ontario, London, Ontario, Canada D.G. in M.A. in Economics at the University of Western Ontario, London, Ontario, Canada D.G. in M.A. in Economics at the University of Western Ontario, London, Ontario, Canada D.G. in M.A. in Economics at the University of Western Ontario, London, Ontario, Canada D.G. in M.A. in Economics at the University of Western Ontario, London, Ontario, Canada D.G. in M.A. in Economics at the University of Western Ontario, London, Ontario, Canada D.G. in M.A. in Economics at the University of Western Ontario, London, Ontario, Canada D.G. in M.A. in Economics at the University of Western Ontario, London, Ontario, Canada D.G. in M.A. in Economics at the University of Western Ontario, London, Ontario, Canada D.G. in M.A. in Economics at the University of Western Ontario, London, Ontario, Canada D.G. in M.A. in Economics at the University of Western Ontario, London, Ontario, Canada D.G. in M.A. in Economics at the University of Western Ontario, London, Ontario, Canada D.G. in M.A. in Economics at the University of Western Ontario, Canada D.G. in M.A. in Economics at the University of Western Ontario, Canada D.G. in M.A. in Economics at the University of Western Ontario, Canada D.G. in M.A. in Economics at the University of Western Ontario, Canada D.G. in M.A. in Economics at the University of Western Ontario, Canada D.G. in M.A. in Economics at the University of Western Ontario, Canada D.G. in M.A. in Economics at the University of Western Ontario, Canada D.G. in M.A. in Economics at the University of Western Ontario, Canada D.G. in M.A. in Economics at the University of Western Ontario, Canada D.G. in M.A. i

1985 B.Sc. in Mathematics at Jilin University, Changchun, Jilin, China

#### TEACHING AND PROFESSIONAL EXPERIENCE

September 2013-present, Castor Professor of Economics, University of Washington September 2013-present, Adjunct Professor of Statistics, University of Washington September 2014-present, Affiliate Faculty of CSSS, University of Washington September 2020-present, Affiliate Faculty of Kantorovich Initiative, University of Washington

January 2011-August 2013, Centennial Professor of Economics, Vanderbilt University September 2001-December 2010, Professor of Economics, Vanderbilt University September 2006-August 2013, Professor of Mathematics (by Courtesy), Vanderbilt University

July 1998 - June 2001, Professor of Economics, University of Windsor

July 1994 - June 1998, Associate Professor of Economics, University of Windsor

July 1989 - June 1994, Assistant Professor of Economics, University of Windsor

May 1989 - June 1989, Instructor in Mathematical Economics, University of Western Ontario

June 1-5, 2015, Visiting Scholar at the Becker Friedman Institute for Research in Economics at the University of Chicago

April 29-May 6, 2014, Cemmap visitor, University College London

April 10-16, 2011, Visiting Fellow, CIREQ (Centre interuniversitaire de recherche en economie quantitative) at McGill University

March 1-5, 2010, Visiting Fellow, Cowles Foundation, Yale University

November 16-24, 2007, Visiting Fellow, the Forschungsinstitut fur Mathematik ETH Zurich

September 2005, Visiting Fellow, CIREQ (Centre interuniversitaire de recherche en economie quantitative) at McGill University

October 4-19, 2005, Visiting Fellow, SAMSI (the Statistical and Applied Mathematical Sciences Institute)

May 12-19, 2004, Visiting Fellow, CIREQ (Centre interuniversitaire de recherche en economie quantitative) at McGill University

#### **HONOURS AND AWARDS**

- 2022 2025 Co-PI in NSF Infrastructure grant (PIHOT) DMS-2133244
- 2021 Fellow of the International Association for Applied Econometrics (IAAE)
- 2018 Winner of the Arnold Zellner Award of <u>Journal of Econometrics</u> for the Best Theory Paper Published in 2016 and 2017 for the Paper: "A Direct Approach to Inference in Nonparametric and Semiparametric Quantile Models" (joint with Ruixuan Liu)
- 2018 Fellow of the Journal of Econometrics
- 2015 Western Economics Alumni Award Winner
- 2010 Outstanding Author Contribution Award Winner at the Emerald Literati Network Awards for Excellence for the paper: "Partial Identification of the Distribution of Treatment Effects and Its Confidence Sets," (with Sang Soo Park) published in <u>Advances in</u> Econometrics
- 2009 Winner of Chancellor's Award for Research, Vanderbilt University
- 2008 Winner of the Arnold Zellner Award of <u>Journal of Econometrics</u> for the Best Theory Paper Published in 2006 and 2007 for the Paper: "Estimation of Copula-based Semiparametric Time Series Models" (joint with Xiaohong Chen)
- 2001 Econometric Theory Multa Scripsit Award

#### EDITORIAL BOARD

Quantitative Finance and Economics, 2017-Present Book Series on Econometrics, World Scientific, 2013-Present Econometric Reviews, 2010-present Journal of Econometrics, 2009-present Journal of Financial Econometrics, 2005-Present The Annals of Economics and Finance, 2001-Present Frontiers of Economics in China, 2011-2021 Econometric Theory, 2006-2010 Journal of Nonparametric Statistics, 2003-2011

#### PROFESSIONAL SERVICE

Member of the Program Committee for Canadian Econometric Study Group Meetings (CESG), 1994, 2000, 2014

Member of the Program Committee for International Symposium on Econometric Theory and Applications (SETA), 2008, 2014

Member of the Program Committee for the Annual Conference of the Society for Financial Econometrics (SoFiE), 2010, 2014-2023

Coordinator of Seattle-Vancouver Econometrics Conference (SVeC), 2014

Member of the Program Committee for the Sixth Annual Conference of the International Association of Applied Econometrics (IAAE), 2019

Member of the Program Committee for the North American Econometric Society Summer Meetings, 2019

Co-organizer of the 2023 Workshop on Optimal Transport and Econometrics, University of Washington.

Co-organizer of the 2023 California Econometrics Conference, University of Washington. Co-organizer of the 2024 BIRS Workshop on Optimal Transport and Distributional Robustness at BANFF.

Co-organizer of the 2024 Workshop on Women in Optimal Transport, UBC.

#### **PUBLICATIONS**

- 72. "Wald, QLR, and Score Tests When Parameters are Subject to Linear Inequality Constraints," (with Xuetao Shi), Forthcoming at Journal of Econometrics, 2023.
- 71. "Partial Identification and Inference in Moment Models with Incomplete Data," (with Xuetao Shi and Jing Tao), Forthcoming at <u>Journal of Econometrics</u>, 2023
- 70. "Vector Copulas," (with Marc Henry), <u>Journal of Econometrics</u> 234, 128-150, 2023.
- 69. "An Interval Arithmetic Linear Model and Inequality-Constrained Inference," (with Xuetao Shi), Econometric Theory 39, 27-69, 2023.
- 68. "On Rank Estimators in Increasing Dimensions," (with Fang Han, Wei Li, and Xiao-Hua Zhou), Journal of Econometrics 214, 379-412, 2020.
- 67. "Identification and Wavelet Estimation of Weighted ATE under Discontinuous and Kink Incentive Assignment Mechanisms," (with Heng Chen), <u>Journal of Econometrics</u> 212, 476-502, 2019.
- 66. "A Smoothed Q-learning Algorithm for Dynamic Treatment Regimes," (with Ming He, Liangjun Su, and Xiahua Z hou), <u>Scandinavian Journal of Statistics</u> 46, 446-469, 2019.
- 65. "Partial Identification and Inference in Censored Quantile Regression: A Sensitivity Analysis," (with Ruixuan Liu), <u>Journal of Econometrics</u> 206, 1-38, 2018.
- 64. "On the Density Estimation of Air Pollution in Beijing," (with Lei Hou and Karen Yan), Economics Letters 163, 110-113, 2018.
- 63. "Partial Identification of the Treatment Effect on the Treated in Difference-in-Differences Framework with Repeated Cross-Sectional Data," (with Carlos A. Manzanares), <u>Econometric Reviews</u> 36, 1057-1080, 2017.
- 62. "Partial Identification and Confidence Sets for Functionals of the Joint Distribution of "Potential Outcomes"," (with Emmanuel Guerre and Dongming Zhu), Journal of Econometrics 197, 42-59, 2017.
- 61. "Inference for the Correlation Coefficient between the Potential Outcomes in Gaussian Switching Regime Models," (with Heng Chen and Ruixuan Liu), <u>Journal of Econometrics</u> 195, 255-270, 2016.
- 60. "Inference for Optimal Split Point in Conditional Quantiles," (with Ruixuan Liu and Dongming Zhu), <u>Frontiers of Economics in China</u> 11, 40-59, 2016.
- 59. "Multivariate Local Polynomial Estimators: Uniform Boundary Properties and Asymptotic Linear Representation," (with Emmanuel Guerre), <u>Advances</u> in Econometrics 36, 489-537, 2016.
- 58. "Estimation and Inference in an Ecological Inference Model," (with Robert Sherman and Matthew Shum), <u>Journal of Econometric Methods</u>, 17-48, 2016.
- 57. "A Direct Approach to Inference in Nonparametric and Semiparametric Quantile Models," (with Ruixuan Liu), <u>Journal of Econometrics</u> 191, 196-216, 2016.
- 56. "Maximization by Parts in Extremum Estimation," (with Sergio Pastorello and Eric Renault), Econometrics Journal, 147-171, 2015.

- 55. "Symmetrized Multivariate k-NN Estimators," (with Ruixuan Liu), <u>Econometric Reviews</u>, 827-847, 2015.
- 54. "Identifying Treatment Effects under Data Combination," (with Robert Sherman and Matthew Shum), <u>Econometrica 82</u>, 811-822, 2014.
- 53. "Copulas in Econometrics," (with Andrew Patton), <u>Annual Review of Economics</u>, vol. 6, 179-200, 2014.
- 52. "A Flexible Parametric Approach to Estimating Switching Regime Models and Treatment Effect Parameters," (with Heng Chen and Jisong Wu), <u>Journal of Econometrics</u>, 77-91, 2014.
- 51. "Nonparametric Inference for Counterfactual Means: Bias Correction, Confidence Sets, and Weak Instruments," (with Sangsoo Park), <u>Journal of Econometrics</u> 178, 45-56, 2014.
- 50. "Partial Identification of Distributional and Quantile Treatment Effects in Difference-in Differences Models," (with Zhengfei Yu), Economics Letters 115, 511-515, 2012.
- 49. "Confidence Intervals for the Quantile of Treatment Effects in Randomized Experiments," (with Sang Soo Park), <u>Journal of Econometrics</u> 167, 330-344, 2012.
- 48. "Nonparametric Instrumental Regression," (with Serge Darolles, Jean-Pierre Florens, and Eric Renault), <u>Econometrica 79</u>, 1541-1565, 2011.
- 47. "A New Class of Asymptotically Efficient Estimators for Moment Condition Models," (with Matt Gentry and Tong Li), <u>Journal of Econometrics</u> 162, 268-277, 2011.
- 46. "Partial Identification of the Distribution of Treatment Effects in Switching Regime Models and its Confidence Sets," (with Jisong Wu), <u>Review of Economic Studies</u> 77, 1002-1041, 2010.
- 45. "Wavelet-Based Tests for Unit Root," (with Ramo Gencay), <u>Econometric Theory</u> 26, 1305-1331, 2010.
- 44. "Sharp Bounds on the Distribution of Treatment Effects and Their Statistical Inference," (with Sang Soo Park), <u>Econometric Theory</u> 26, 931-951, 2010.
- 43. "Copulas in Econometrics," <u>Encyclopedia of Quantitative Finance</u>, Cont, R. (Ed.). John Wiley & Sons Ltd. Chichester, UK. pp. 375-379, 2010.
- 42. "Estimation and Model Selection of Semiparametric Multivariate Survival Functions Under General Censorship," (with Xiaohong Chen, Demian Pouzo, and Zhiliang Ying), Journal of Econometrics 157, 129-142, 2010.
- "Partial Identification of the Distribution of Treatment Effects and its Confidence Sets," (with Sang Soo Park), in Thomas B. Fomby and R. Carter Hill (ed.) *Nonparametric Econometric Methods (Advances in Econometrics, Volume 25)*, Emerald Group Publishing Limited, pp.3-70, 2009.
- "Statistical Inference for Multivariate Residual Copula of GARCH Models," (with Ngai-Hang Chan, Jian Chen, Xiaohong Chen and Liang Peng), <u>Statistica Sinica</u> 19, 53-70, 2009.
- 39 "Test Statistics," <u>International Encyclopedia of the Social Sciences</u>, 2<sup>nd</sup> edition, Editor in Chief, William A. Darity, Jr., 2007.
- 38 "Model Selection Test for Bivariate Failure-Time Data," (with Xiaohong Chen), Econometric Theory 23, 414-439, 2007.
- 37 "Efficient Estimation of Semiparametric Multivariate Copula Models," (with Xiaohong Chen and Viktor Tsyrennikov), <u>Journal of the American Statistical Association</u> 101, 1228-1240, 2006.

- 36 "Estimation and Model Selection of Semiparametric Copula-Based Multivariate Dynamic Models Under Copula Misspecification," (with Xiaohong Chen), <u>Journal of Econometrics 135, 125-154, 2006.</u>
- 35 "A Nonparametric Bootstrap Test of Conditional Distributions," (with Qi Li and Insik Min), Econometric Theory 22, 587-613, 2006.
- 34 "Semiparametric Estimation of Copula-Based Time Series Models," (with Xiaohong Chen), <u>Journal of Econometrics</u> 130, 307-335, 2006.
- 33 "Pseudo-Likelihood Ratio Tests for Model Selection in Semiparametric Multivariate Copula Models," (with Xiaohong Chen), <u>The Canadian Journal of Statistics</u> 33, 389-414, 2005.
- "Maximization by Parts in Likelihood Inference," (with Peter Song and Jack Kalbfleisch), <u>Journal of the American Statistical Association</u> 100, 1145-1158, 2005; Rejoinder to Discussants, <u>Journal of the American Statistical Association</u> 100, 1164-1167, 2005.
- 31 "Nonlinearity in Medical Expenditure: A New Semiparametric Approach," (with D. Li and Q. Li), <u>Applied Economics</u> 36, 911-916, 2004.
- 30 "Evaluating Density Forecasts via the Copula Approach," (with Xiaohong Chen), Finance Research Letters 1, 74-84, 2004.
- 29 "A Wavelet Solution to the Spurious Regression of Fractionally Differenced Processes," (with Brandon Whitcher), <u>Applied Stochastic Models in Business and Industry</u> 19, 171-183, 2003.
- 28 "A Kernel-Based Method for Estimating Additive Partially Linear Models," (with Qi Li), Statistica Sinica 13, 739-762, 2003.
- 27 "On the Approximate Decorrelation Property of the Discrete Wavelet Transform for Fractionally Differenced Processes," <u>IEEE Transactions on Information Theory</u> 49, 516-521, 2003.
- 26 "Some Higher Order Theory for Consistent Nonparametric Model Specification Test," (with Oliver Linton) <u>Journal of Statistical Planning and Inference</u> 109,125-154, 2003.
- 25 "A Consistent Model Specification Test Based on Kernel Sum of Squares of Residuals," (with Qi Li), <u>Econometric Reviews</u> 21, 337-352, 2002.
- 24 "A Consistent Test for the Parametric Specification of the Hazard Function," (with Paul Rilstone) <u>Annals of Economics and Finance</u> 2, 77-96, 2001.
- "Optimal Bandwidths for Kernel Density Estimators of Functions of Observations," (with Ibrahim Ahmad) <u>Statistics and Probability Letters</u> 51, 245-251, 2001.
- "Consistent Model Specification Tests: Kernel-Based Tests Versus Bierens' ICM Tests," (with Qi Li) Econometric Theory 16, 1016-1041, 2000.
- 21 "Asymptotic Normality of a Combined Regression Estimator," (with A. Ullah) <u>Journal of Multivariate Analysis</u> 71, 191-240, 1999.
- 20 "Root-N-Consistent Estimation of Partially Linear Time Series Models," (with Qi Li) Journal of Nonparametric Statistics 11, 251-269, 1999.
- "On Goodness-of-fit Tests for Weakly Dependent Processes Using kernel Method," (with Aman Ullah) <u>Journal of Nonparametric Statistics</u> 11, 337-360, 1999.
- "Consistent Hypotheses Tests in Nonparametric and Semi-parametric Models for Econometric Time Series," (with Xiaohong Chen) <u>Journal of Econometrics</u> 91, 373-401, 1999.

- "Central Limit Theorems for Degenerate *U*-statistics of Absolutely Regular Processes With Applications to Model Specification Testing," (with Qi Li) <u>Journal of</u> Nonparametric Statistics 10, 245-271, 1999.
- "A Data-Driven Test for Dispersive Ordering," <u>Statistics and Probability Letters</u> 41, 331-336, 1999.
- "Goodness-of-fit Tests Based on Kernel Density Estimators With Fixed Smoothing Parameters," Econometric Theory 14, 604-621, 1998.
- "A Consistent Nonparametric Test for Linearity of AR(p) Models," (with Q. Li) Economics Letters 55, 53-59, 1997.
- 13 "A Simple Test for a Parametric Single Index Model," (with Z. Liu) <u>Journal of Quantitative Economics</u> 13, 95-103, 1997.
- "Goodness-of-fit Tests for a Multivariate Distribution by the Empirical Characteristic Function," Journal of Multivariate Analysis 62, 36-63, 1997.
- "A Note on Asymptotic Normality for De-convolution Kernel Density Estimators," (with Y. Liu) Sankhya, Series A 59, 138-141, 1997.
- "Consistent Model Specification Tests: Omitted Variables and Semi-parametric Functional Forms," (with Qi Li) <u>Econometrica</u> 64, 865-890, 1996.
- 9 "Semi-parametric Estimation of Stochastic Production Frontiers," (with Qi Li and Alfons Weersink) <u>Journal of Business and Economic Statistics</u> 14, 460-468, 1996.
- 8 "A Consistent Nonparametric Test of Symmetry in Linear Regression Models," (with R. Gencay) <u>Journal of the American Statistical Association</u> 90, 551-557, 1995.
- 7 "Average Derivative Estimation with Errors-in-Variables," <u>Journal of Nonparametric</u> Statistics 4, 395-407, 1995.
- 6 "Bootstrapping a Consistent Nonparametric Goodness-of-Fit Test," <u>Econometric</u> Reviews 14, 367-382, 1995.
- 5 "Bootstrapping the J-type Tests for Non-nested Regression Models," (with Qi Li) Economics Letters 48, 107-112, 1995.
- 4 "Root-N-Consistent Semi-parametric Regression with Conditionally Heteroscedastic Disturbances," (with Qi Li and Thanasis Stengos) <u>Journal of Quantitative Economics</u> 11, 229-240, 1995.
- 3 "Testing the Goodness-of-Fit of a Parametric Density Function by Kernel Method," <u>Econometric Theory</u> 10, 316-356, 1994.
- 2 "Hypotheses Testing based on Modified Nonparametric Estimation of an Affinity Measure between Two Distributions," (with Ramazan Gencay) <u>Journal of Nonparametric Statistics</u> 2, 389-403, 1993.
- 1 "Consistent Nonparametric Multiple Regression for Dependent Heterogeneous Processes: The Fixed Design Case," <u>Journal of Multivariate Analysis</u> 33, 72-88, 1990.

### COMPLETED PAPERS AND PAPERS UNDER REVIEW

- 1. "Estimation and Inference in Discrete Games of Incomplete Information with Non-Separable Unobserved Heterogeneity," (with Shuo Jiang and Xuetao Shi), R&R at Quantitative Economics, 2023.
- 2. "Estimation and Tests for Granger Causality in a Latent High Dimensional Gaussian Vector Autoregressive Model," (with Fang Han and Hyeonseok Park), 2<sup>nd</sup> revision resubmitted to Journal of Econometrics, 2023.

- 3. "Lorenz Map, Inequality Ordering and Curves Based on Multidimensional Rearrangements," (with Marc Henry, Brendan Pass, and Jorge Rivero), submitted to the Review of Economics and Statistics, 2023.
- 4. "Quantifying Distributional Model Risk in Relaxed Marginal Problems via Optimal Tranport," (with Hyeonseok Park and Gaoqian Xu), 2023.
- 5. "Minimum Sliced Distance Estimation in Structural Models," (with Hyeonseok Park), 2021.

## PH. D. COMMITTEES (Chair)

- 1. Sang Soo Park (2008, first placement: tenure-track assistant professor, Department of Economics, University of North Carolina at Chapel Hill), Department of Economics, Vanderbilt University
- 2. Jisong Wu (2009, first placement: tenure-track assistant professor, Department of Economics, Indiana University-Purdue University, Indianapolis), Department of Economics, Vanderbilt University
- 3. Shabana Mitra (**Co-Chair**, 2011, first placement: World Bank), Department of Economics, Vanderbilt University
- 4. Heng Chen (2012, first placement: Bank of Canada), Department of Economics, Vanderbilt University
- 5. Ruixuan Liu, (2015, first placement: tenure-track assistant professor, Department of Economics, Emory University), Department of Economics, University of Washington
- 6. Ming He, (2016, first placement: tenure-track assistant professor, Department of Economics, University of Technology Sydney), Department of Economics, University of Washington
- 7. Sunny (Yangguang) Huang (**Co-Chair**), (2016, first placement: tenure-track assistant professor, Department of Economics, Hong Kong University of Science and Technology), Department of Economics, University of Washington
- 8. Carlos Manzanares (**Co-Chair**), (2016, first placement: Amazon), Department of Economics, Vanderbilt University
- 9. Shih-Tang Hwu (**Co-Chair**), (2018, first placement: tenure-track assistant professor, Department of Economics, California State Polytechnic University, Pomona), Department of Economics, University of Washington
- 10. Xuetao Shi (2020, first placement: tenure-track assistant professor, Department of Economics, University of Sydney), Department of Economics, University of Washington
- 11. Shuo Jiang, (2021, first placement: tenure-track assistant professor, Wang Yanan Institute for Studies in Economics (WISE), Xiamen University, China), Department of Economics, University of Washington
- 12. Hyeonseok Park, (2022, first placement: tenure-track assistant professor, Advanced Institute for Economic Research (AIER), Dongbei University of Finance and Economics, China), Department of Economics, University of Washington
- 13. Wendao Xue, in progress, Department of Economics, University of Washington
- 14. Jorge Rivero, in progress, Department of Economics, University of Washington
- 15. Yigit Okar, in progress, Department of Economics, University of Washington
- 16. Yoon Choi, in progress, Department of Economics, University of Washington