# **Kyungchul Song**

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#### **Contacts:**

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## **Employment:**

Professor of Economics, University British Columbia (2020-Present) Associate Professor of Economics, University of British Columbia (2011-2020) Assistant Professor of Economics, University of Pennsylvania (2005-2011)

#### **Education:**

Yale University, Ph D., Economics, 2005 Yale University, M.A., Economics, 2002 Seoul National University, M.A., Economics, 2000 Seoul National University, B.A., Economics, 1998.

#### **Awards and Grants:**

The Econometric Theory Multa Scripsit Award (from the journal *Econometric Theory*), October, 2018 Insight Grants from Social Science and Humanities Research Council of Canada, (2012-2015, 2016-2019, 2020-2025)

Young Scholar's Award, The Korea-America Economic Association, January, 2010. Carl Arvid Anderson's Prize, Cowles Foundation, 2003/2004.

### **Publications:**

"Limit Theorems for Network Dependent Processes", (with Vadim Marmer and Denis Kojevnikov) Journal of Econometrics, 2020. (Published online, in press)

"Estimating Local Interactions among Many Agents Who Observe Their Neighbors", (with Nathan Canen and Jacob Schwartz) *Quantitative Economics*, 2020, 11, 917-956

"The Role of Quality in Internet Service Markets", (with Elena Krasnokutskaya and Xun Tang), *Journal of Political Economy*, 2019, 128, 75-117.

"Monte Carlo Inference on Two-Sided Matching Models", (with Taehoon Kim, Jacob Schwartz, and Yoon-Jae Whang) *Econometrics*, 2019, 7, 1-15.

"Stable Limit Theorems for Empirical Processes Under Conditional Neighborhood", (with Ji Hyung Lee) *Bernoulli Journal*, 2019, 25, 1189-1224.

"Testing for a General Class of Functional Inequalities", (with Sokbae Lee and Yoon-Jae Whang) *Econometric Theory*, 2018, 34, 1018-1064.

"Measuring the Graph Concordance of Locally Dependent Observations", *Review of Economics and Statistics*, 2018, 100, 535-549.

"Simulated MLE for Discrete Choices using Transformed Simulated Frequencies", (with Donghoon Lee)  $Journal\ of\ Econometrics$ , 2015, 187, 131-153.

"Minimax Estimation of Nonregular Parameters and Discontinuity in Minimax Risk", *Essays in Honor of Peter C. B. Phillips, Advances in Econometrics*, 2014, Vol 33, 557-585.

"Local Asymptotic Minimax Estimation of Nonregular Parameters with Translation-Scale Equivariant Maps," *Journal of Multivariate Analysis*, 2014, 125, 136-158

"Semiparametric Models with Single-Index Nuisance Parameters", *Journal of Econometrics*, 2014, 178, 471-483

"Point Decisions for Interval-Identified Parameters," Econometric Theory, 2014, 30, 334-356.

"Testing Functional Inequalities," (with Sokbae Lee and Yoon-Jae Whang) *Journal of Econometrics*, 2013, 172, 14-32.

"On the Smoothness of Conditional Expectation Functionals," Statistics and Probability Letters, 2012, 82, 1017-1024.

"Testing Predictive Abilities and Power Robustification," *Journal of Business and Economic Statistics*, 2012 30, 288-296.

"Testing Single-Index Restrictions with a Focus on Average Derivatives," (with Juan Carlos Escanciano), *Journal of Econometrics*, 2010, 156, 377-391.

"An Improved Bootstrap Test of Stochastic Dominance," (with Oliver Linton and Yoon-Jae Whang), *Journal of Econometrics*, 2010, 154, 186-202.

"Testing Semiparametric Conditional Moment Restrictions using Conditional Martingale Transforms," *Journal of Econometrics*, 2010, 154, 74-84.

"Testing Conditional Independence via Rosenblatt Transforms," *Annals of Statistics* 2009, 37, 4011-4045.

"Uniform Convergence of Series Estimators over Function Spaces" *Econometric Theory*, 2008, 24, 1463-1499.

"Bootstrapping Cointegrating Regressions," (with Yoosoon Chang and Joon Y. Park) *Journal of Econometrics*, 2006, 133, 703-739

# **Working Papers:**

- "A Uniform-in-P Edgeworth Expansion Under Weak Cramer Conditions" Accepted in Statistics.
- "Estimating Unobserved Individual Heterogeneity using Pairwise Comparisons", (with Elena Krasnokutskaya and Xun Tang) Conditionally Accepted in *Journal of Econometrics*.
- "Measuring Diffusion over a Large Network", (with Xiaoqi He) Under Revision for Resubmission.
- "Multiple Testing and the Distributional Effects of Accountability Incentives in Education", (with Steven Lehrer and Vincent Pohl) Under Revision for Resubmission.
- "A Decomposition Analysis of Diffusion over a Large Network", Under Revision for Resubmission.
- "Counterfactual Analysis under Partial Identification Using Locally Robust", (with Nathan Canen), Under Revision for Resubmission.
- "Ordering-Free Inference from Locally Dependent Data". Under Revision.
- "Econometric Inference on Large Bayesian Games with Heterogeneous Beliefs", (with Denis Kojevnikov) Under Revision.

"Treatment Effects for Which Population?: Sampling Design and External Validity", (with Zhengfei Yu) Under Revision.

## **Work in Progress**

A Decomposition Approach to Counterfactual Analysis in Game-Theoretic Models (with Nathan Canen)

The Law of Large Numbers for Large Stable Matchings (with Jacob Schwartz)

Statistical Decisions on College Admissions (with Florian Hoffmann)

On Berry-Esseen Type Bounds for Maxima of Vector-Valued Martingales (with Denis Kojevnikov)

#### **Invited Talks and Conference Presentations:**

2020: Vanderbilt University (Cancelled due to COVID19), CIREQ Montreal Econometrics Conference (Cancelled due to COVID19), Econometric Methods for Modern Data Structures (University of Cambridge) (Cancelled due to COVID19), University of Warwick.

2019: UC San Diego, UCLA, Asia Meeting (Xiamen), Indiana University, Michigan State University, Northwestern University.

2018: University of Connecticut, McMaster University, Asia Meeting (Seoul), Conference in Celebration of Peter Phillips' 40 Years at Yale University, Harvard/MIT, Brown University, Rice University, Texas A&M.

2017: University of Colorado at Boulder, University of Southern California, Asia Meeting (Hong Kong), Cowles Foundation Summer Conference (Yale University), Canadian Econometrics Study Group Meeting (Discussant), University of Chicago.

2016: University of British Columbia (Department of Statistics), North American Summer Meeting of Econometric Society (Philadelphia), KEA International Conference (Seoul), Asia Meeting (Kyoto), Cemmap Conference in Kyoto, Seattle-Vancouver Econometrics Conference (Vancouver), Canadian Econometrics Study Group Meeting (London, ON)

2015: UC Davis, Cemmap Conference in Seoul, Econometric Society World Congress, Yale University, UC Berkeley, The INET Conference on Networks (Discussant) (University of Southern California), University of Toronto

2014: Econometric Society North American Summer Meeting, KEA-KAEA Summer Meeting, Seattle-Vancouver Econometrics Conference, Duke University, University of Southern California, UC San Diego.

2013: Queens University, Boston College, Cowles Conference at Yale University, Canadian Econometrics Study Group Meeting (Discussant), University of Washington, The 14<sup>th</sup> Advances in Econometrics Conference in Honor of Peter, C. B. Phillips. University of Texas at Dallas.

2012: Seoul National University, University of Wisconsin-Madison, Conference on Partial Identification and Statistical Decisions (Cornell University), KEA-KAEA Summer Conference, Econometric Society North American Summer Meeting, WEAI Conference, Summer Workshop at Center for Econometrics (Seoul National University).

2011: Boston University, University of Texas at Austin, University of Rochester, IUPUI, Cemmap Seminar (UCL)

2010: Indiana University, World Congress in Shanghai, University of Montreal, Midwest Econometrics Study Group Meeting, University of British Columbia, Canadian Econometrics Meeting, University of Iowa, Greater NY Econometrics Colloquium (New York University)

2009: Far Eastern Econometric Society Meeting (University of Tokyo), Midwest Econometric Group Meeting, Brown University, UCLA, Vanderbilt University, Greater NY Econometrics Colloquium (Brown University)

2008: New Zealand Econometric Study Group Meeting (U of Auckland), Vanderbilt University, Lehigh University, Greater NY Metropolitan Econometrics Colloquium (Princeton University)

2007: Indiana University, University of Michigan, Ohio State University, Korean Econometric Society Summer Meeting (Invited Speaker), New York University, London School of Economics, University of Virginia

2006: ASSA Conference (KAEA), Columbia University, Penn State University, Rutgers University, Texas A&M. The Greater New York Metropolitan Econometrics Colloquium (Yale University) UC Riverside, UCLA.

2005: University of Pennsylvania, Stanford University, University of Wisconsin-Madison, University of Arizona, University of California San Diego, New York University, the Greater New York Metropolitan Econometrics Colloquium (Columbia University)

2004: University of Illinois-Urbana Champaign

#### **Referee Activities:**

Bernoulli Journal, Econometric Theory, Econometrics Review, Econometrica, International Economic Review, International Journal of Forecasting, Israel Science Foundation, Journal of the American Statistical Association, Journal of Applied Econometrics, Journal of Econometrics, Journal of Business, and Economic Statistics, Journal of Economic Dynamics and Control, Journal of Economic Inequality, Journal of Financial Econometrics, Journal of Multivariate Analysis, Journal of the Royal Statistical Society, Journal of Statistical Planning and Inference, Journal of Time Series Analysis, Journal of Time Series Econometrics, National Science Foundation, Oxford Bulletin of Economics and Statistics, Quantitative Economics, Review of Economic Studies, Review of Economics and Statistics, Test.

## **Teaching Activities:**

University of British Columbia

Econ 425 (Introduction to Econometrics) (undergraduate)

Econ 490 (Seminar in Applied Economics) (undergraduate)

Econ 492A (Directed Reading Course: Auction Theory) (undergraduate)

Econ 492A (Directed Reading Course: Economics of Network) (undergraduate)

Econ 629 (Topics in Econometric Theory) (graduate)

Econ 626 (Econometric Theory I) (graduate)

Econ 592 (Reading Course: Econometric Methodologies in Social Economics) (graduate)

Econ 592 (Reading Course: Empirical Process Theory) (graduate)

#### University of Pennsylvania

Econ 712 (Advanced Topics in Econometrics) (graduate)

Econ 705 (Fundamentals: Econometrics I) (graduate)

Econ 221 (Econometric Forecasting) (undergraduate)

Econ 220 (Introduction to Econometrics) (undergraduate)

Econ 103 (Introduction to Statistics) (undergraduate)

## **Other Activities:**

University of British Columbia

Graduate Admissions (2011-2016)

Chairing Computer Committee (2015-2016)

Undergraduate Coordinator (2018- Present)

Program Committee: North American Summer Meeting (2019)

# University of Pennsylvania

Coorganizer of Econometrics Seminar (2007 Fall-2008 Spring)

Coorganizer of Econometrics Lunch for Faculty and Students (2007 Fall – 2008 Spring)

Coorganizer of Greater New York Metropolitan Econometrics Colloquium (December 2007)

Graduate Admissions Committee (2006-2008)

Premajor (Freshmen) Advisor (2007-2008)