Byunghoon Kang (David)

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Employment

Senior Lecturer (Associate Professor), Department of Economics, Lancaster University, August 2023 – present.

Lecturer (Assistant Professor), Department of Economics, Lancaster University, August 2016 – August 2023.

Education

Ph.D. Economics, University of Wisconsin-Madison, May 2016.

Dissertation: "Essays on Nonparametric Inference and Instrument Selection".

Committee: Bruce E. Hansen (Advisor), Jack R. Porter, Xiaoxia Shi.

M.S. Economics, University of Wisconsin-Madison, 2013.

M.A. Economics, Seoul National University, 2011.

B.S. Mathematics, Korea Advanced Institute of Science and Technology (KAIST), 2009.

Research Fields

Econometric Theory, Applied Econometrics.
Research Interests: IV and GMM models, Model Misspecification, Non/semiparametric Methods, High-dimensional econometric models.

Publications

[4] Kang, B., S. Lee, and J.Song. "Convergence Rates of GMM Estimators with Nonsmooth Moments under Misspecification", *Seoul Journal of Economics*, forthcoming.

[3] Kang, B. (2024). "Higher Order Approximation of IV Estimators with Invalid Instruments", *Econometric Theory*, 40(4), 752–789.

[2] Hwang, J., B. Kang and S. Lee (2022). "A Doubly Corrected Robust Variance Estimator for Linear GMM", *Journal of Econometrics*, 229(2), 276–298.

STATA command on the doubly-corrected SE

linear IV: `dcivreg` (link), dynamic panel GMM: `xtdpdgmm,vce(robust,dc)` (link)

[1] Kang, B. (2021). "Inference in Nonparametric Series Estimation with Specification Searches for the Number of Series Terms", *Econometric Theory*, 37(2), 311–345.

Working Papers/Work-in Progress

[1] "An Efficient IV Estimator for 2SLS Estimands under Heterogeneous Treatment Effects", October 2025

[2] "Efficient GMM and Weighting Matrix under Misspecification", October 2025.

[3] "A Note on the Asymptotic Size of Leamer's Extreme Bounds Analysis", with Dimitris Gkountanis, September 2025

[4] "Misspecification-Robust Asymptotic and Bootstrap Inference for Nonsmooth GMM" with Seojeong Lee, March 2025.

[5] "Robust Inference for Smoothed Instrumental Variables Quantile Regression" with Seojeong Lee.

[6] "GMM with Many Weak Moment Conditions under Misspecification" with Seojeong Lee, Sep 2021

[7] "`dcxtab`: Doubly-Corrected and Misspecification-Robust (DCMR) Variance Estimator for Linear GMM in Stata" with Jungbin Hwang and Seojeong Lee, Aug 2019

[6] "Criterion-Based Model Averaging", with Seojeong Lee, June 2018

[7] "Smoothing Parameter Robust Inference for Semiparametric Estimators", 2017

Fellowships, Honors and Awards

BA/Leverhulme Small Research Grants (SRG19-190639), Principal Investigator, £9,994, "Robust Econometric Inference and Economic Applications".

Economic and Social Research Council (ESRC) Grant (ES/R003629/1), Co-Investigator, Jan 2018 - Dec 2019, £161,224.

Early Career Research Grant (Pump-Prime Award), Lancaster University Management School, 2017-2018, £4,600.

Leon Mears Dissertation Fellowship, Department of Economics, UW-Madison, 2015-2016.

Chancellor's Opportunity Award, Graduate School, UW-Madison, 2011-2013.

Chancellor's Opportunity Fellowship, Graduate School, UW-Madison, 2011-2012.

Kwanjeong Educational Foundation Graduate Research Fellowship, 2011-2016, US$ 125,000.

Best Paper Award for Citigroup-Korea Institute of Finance Paper Contest, joint with Dongjae Eun, 2009.

Korean Research Foundation Research Fellowship, 2009 - 2011.

BK 21 Research Scholarships, Seoul National University, 2009.

Summa Cum Laude, KAIST, 2009.

Highest Honor for Academic Excellence, KAIST, 2003-2004.

Seminars and Conferences Presentations

2024-25: University of Groningen Workshop on Causal Inference and Machine Learning. Econometric Society World Congress, Seoul National University Econometrics Workshop.

2023-24: Econometrics workshop on Advances in Microeconometrics (University of Manchester), Bristol Econometric Study Group Conference.

2022-23: University of Exeter, University of Surrey, Korea University, Seoul National University, International Symposium on Econometric Theory and Applications (SETA).

2021-22: Sogang University.

2020-21: University of Surrey, City University of London, University of Birmingham, University of Essex.

2019-20: CFE-CMS Conference, University of Exeter (cancelled), RES 2020 Annual Conference (cancelled).

2018-19: EEA-ESEM (Manchester), KER International Conference (Seoul), 25th International Panel Data Conference (Vilnius), 10th Nordic Econometric Meeting (Stockholm), University of Connecticut.

2017-18: 4th Conference of the International Society For Nonparametric Statistic (ISNPS), Cambridge, Cardiff University, University College London, York University.

2016-17 : European Meeting of the Econometric Society (ESEM) (Lisbon), The Econometric Study Group Bristol Conference, Korea University, Seoul National University, KAIST BTM.

2015-16 : Sogang University, University of New South Wales, University of Technology Sydney, University of Leicester, Lancaster University, University of Connecticut, UW-Madison Econometrics Workshop, UW-Madison Econometrics Lunch.

Past : Annual Meeting of the Midwest Econometrics Group (Indiana University), UW-Madison Econometrics Lunch, Brown Bag Lunch Seminar (Seoul National University), Korean Association of Applied Economics Annual Meeting (Kookmin University), Korean Economic Association Economics Joint Conference (Seoul National University).

Professional Activities

Referee: *American Journal of Political Science*, *Annals of Statistics*, *Economic Modelling*, *Journal of Applied Econometrics* (×2), *Journal of Econometrics* (×7), *Oxford Bulletin of Economics and Statistics* (×2).

External Grant Review: ESRC (UK).

PhD Thesis External Examiner: Cambridge, 2020

Departmental Service: Department Seminar Organizers, 2017–2021. Deputy Director of MSc Money, Banking and Finance, 2021–present.

Fellow of The Higher Education Academy, 2018–Present

Member, Econometric Society, 2014–Present.

Member, Royal Economic Society, 2017–Present

Conference Organization

Co-organizer, Lancaster Workshop on Macroeconomic and Financial Time Series Analysis, 2018

Co-organizer, Lancaster PhD Summer School on "Model Selection, Forecasting and Machine learning in Econometrics", 2020

Supervision

Ph.D. Students

Mariol Jonuzaj (co-supervisior). Initial position: Postdoctoral Fellow, Department of Economics, Royal Holloway University of London.

MBF, UG dissertation students (6-10 per year).

Teaching Experience

Lancaster University

Microeconometrics (Ph.D.), Fall 2016-

Econometrics and Data Analysis (MSc), Fall 2024-.

Econometrics (UG, third year), Fall 2016-

Data Science in Economics (UG, third year), Fall 2022 - Spring 2024.

Time-series econometrics (Ph.D.), Fall 2018.

University of Wisconsin - Madison

First Year Ph.D. Econometrics Sequence, 2013-14, Teaching Assistant.

Undergraduate Economics Statistics, 2012-2013, Teaching Assistant.

Undergraduate Econometrics, Spring 2016, Teaching Assistant.

Seoul National University

Undergraduate Statistics and Econometrics, 2009-2010, Teaching Assistant.

Miscellaneous

Programming Languages: Matlab, LaTeX, Stata, R.

Year of Birth: 1984. Citizenship: South Korea

Marital Status: Married. One Son.

Last updated: October 3, 2025