

# Curriculum Vitae – Shin Kanaya

## July 2023

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### **Education:**

University of Wisconsin-Madison, Madison, WI, USA

Ph.D., Economics, 24 August, 2008

Dissertation Title: Non-Parametric Econometric Methods for Continuous-Time Diffusion Models

Dissertation Advisors: Bruce E. Hansen (Chair), Dennis Kristensen, Jack R. Porter

M.S., Economics, May 2006

University of Tokyo, Tokyo, Japan

M.A., Economics, March 2002

B.A., Economics, March 2000

### **Employment:**

July 2020 - Associate Professor, Kyoto Institute of Economic Research, Kyoto University  
(with a cross-appointment contract)

Dec 2019 - Associate Professor (Senior Lecturer), Department of Economics, University of Essex

2016 - 2019 Associate Professor, Department of Economics, University of Aarhus & CREATES  
(with a non-fixed-term, tenured contract from September 2017)

2012 - 2016 Assistant Professor, Department of Economics, University of Aarhus & CREATES  
(Center for Research in Econometric Analysis of Time Series)

2008 - 2012 Post-Doctoral Research Fellow, Department of Economics, Nuffield College & Oxford-Man Institute of Quantitative Finance, University of Oxford

### **Research Interests:**

Econometric Theory, Nonparametric Methods, Microeconometrics, Financial/Time-Series  
Econometrics

### **Honors, Scholarships and Grants:**

Grant-in-Aid for Scientific Research (C, 21K01425), Japan Society for the Promotion of Science, 2021-2024

AUFF NOVA Small Project Grant, Aarhus University Research Foundation, Aarhus University, 2020-2022 (joint with Marija Banovic; approx. 48,000 Euro)

Nomination for the Aarhus Business & Social Sciences Research Prize (by the Head of the Economics Department), Aarhus University, Summer 2018

Econometric Theory Multa Scripsit Award, 2018

Seed Funding for Young Researchers, Aarhus University Research Foundation & School of Business and Social Sciences, Aarhus University, 2016 (approx. 4,000 Euro)

Research Project 1 Grant, the Danish Council for Independent Research, Social Sciences (DFF - 4182-00279), 2015-2018 (approx. 177,000 Euro)

Dr. Taro Yamame Memorial Scholarship, University of Wisconsin-Madison, 2003-2004

### **Teaching Experiences:**

University of Essex

Spring 2021 - 2024 Time Series Econometrics (for MSc & MRes students), Lecturer

Spring 2020 - 2024	Microeconometrics (for MSc & MRes students), Lecturer
Kyoto University	
Summer 2021, 2023	Nonparametric Econometrics (for PhD & master students), Lecturer
University of Aarhus	
Fall 2018, 2019	Mathematical Analysis (for PhD & master students in economics), Lecturer
Spring 2016 - 2019, Fall 2012 - 2014	Advanced Econometrics (for PhD & master students; main topics covered: asymptotic theory, extremum estimators, nonparametric identification & estimation of econometric models), Lecturer
University of Oxford	
Michaelmas 2011, 2010 & 2009, and Hilary 2009	Advanced Econometrics (for 2 <sup>nd</sup> year MPhil students): Time Series Asymptotics, Lecturer
Hilary 2010 & 2009	Econometrics (for 1 <sup>st</sup> year MPhil students), Class Teacher
University of Wisconsin-Madison	
Spring 2006	Economic Statistics and Econometrics II (G), Teaching Assistant for Professor Bruce E. Hansen (evaluated as an <i>Excellent TA</i> ; Evaluation: 4.5/5)
Fall 2005	Economic Statistics and Econometrics I (G), Teaching Assistant for Professor Jack R. Porter
Spring 2005	Introductory Microeconomics (U), Teaching Assistant for Professor John Karl Scholz
Fall 2004	Economic Statistics: Measurement in Economics (U), Teaching Assistant for Professor Menzie Chinn
University of Tokyo	
Summer 2002	Microeconomics (U), Teaching Assistant for Professor Masahiro Okuno-Fujiwara

### **Research Experiences and Affiliations:**

2022 -	Internal Fellow, Centre for Macro and Financial Econometrics, University of Essex
2020 - 2022	International Fellow, CREATES (Center for Research in Econometric Analysis of Time Series), University of Aarhus, Aarhus, Denmark
Summer 2019	Visiting Scholar, Kyoto Institute of Economic Research, Kyoto University, Kyoto, Japan
Fall 2016	Visiting Scholar, Indiana University
Summer 2015 - 2018	Visiting Scholar/Visiting Associate Professor, the Institute of Economic Research, Hitotsubashi University, Tokyo, Japan
Summer 2015, Spring 2009	Visiting Researcher, the Institute of Statistical Mathematics, Tokyo, Japan
2007-2008	Project Assistant for Professor Bruce E. Hansen, University of Wisconsin-Madison
2006-2007	Project Assistant for Professor Dennis Kristensen, University of Wisconsin-Madison
2002	Short-Term Research Staff, Financial Market Department, Bank of Japan, Tokyo, Japan
2000-2001	Short-Term Research Staff, Research and Statistics Department, Bank of Japan, Tokyo, Japan

### **Conference Presentations:**

“Causal Learning with Interactions” Workshop, UCL/IFS, London, UK, Dec 2019  
Annual Meeting of the Midwest Econometrics Group, Madison, WI, USA, Oct 2018  
Stanford Institute for Theoretical Economics (SITE) Summer Workshop, Stanford, CA, USA, July 2018  
The 11<sup>th</sup> International Conference on Computational and Financial Econometrics, London, UK, Dec 2017

Royal Economic Society Conference, Bristol, UK, April 2017  
 Annual Meeting of the Midwest Econometrics Group, Urbana-Champaign, IL, USA, Oct 2016  
 Hitotsubashi Summer Institute Workshop “Frontiers in Financial Econometrics,” Tokyo, Japan, Aug 2015  
 The 11<sup>th</sup> International Symposium on Econometric Theory and Applications (SETA), Tokyo, Japan, May 2015  
 AHOI Workshop on Tempo-Spatial Stochastic Processes and Stochastic Volatility, London, UK, Feb 2015  
 Workshop on Advances in Microeconometrics, Hakone, Japan, June 2014  
 The 10<sup>th</sup> International Symposium on Econometric Theory and Applications (SETA), Taipei, Taiwan, May 2014  
 The 24<sup>th</sup> EC2 Conference, University of Cyprus, Nicosia, Cyprus, December 2013  
 Bilkent Annual Summer Workshop in Economics, Bilkent University, Ankara, Turkey, July 2013  
 Conference on Financial Risk, Center for the Study of Finance and Insurance, Osaka University, Osaka, Japan, March 2013  
 Southampton Spring Econometrics Event, Southampton, UK, June 2012  
 Royal Economic Society PhD Meetings, London, UK, January 2012  
 Annual Meeting of the Midwest Econometrics Group, Chicago, IL, USA, October 2011  
 CIREQ Time-Series Conference, Montreal, Canada, May 2011  
 The 28<sup>th</sup> European Meeting of Statisticians, Piraeus, Greece, August 2010  
 Far East and South Asia Meeting of the Econometric Society, Tokyo, Japan, August 2009  
 North American Summer Meeting of the Econometric Society, Boston, MA, USA, June 2009  
 The 43<sup>rd</sup> Annual Conference of the Canadian Economics, Toronto, Canada, May 2009  
 The 4<sup>th</sup> London-Oxbridge Time-Series Conference, London, UK, March 2009  
 Spring Meeting of the Japan Statistical Society, Tokyo, Japan, March 2009  
 Annual Meeting of the Midwest Econometrics Group, St. Louis, MO, USA, October 2007  
 North American Summer Meeting of the Econometric Society, Durham, NC, USA, June 2007

**Seminar Presentations:**

2021-2022	University of York (Mathematics Department), London School of Economics
2020-2021	Osaka University
2018-2019	University of Luxembourg, Queen Mary University of London, University of Essex
2017-2018	National University of Singapore, University of Nottingham, University of York, Kyoto University
2016-2017	Indiana University, Vanderbilt University, University of Tokyo
2015-2016	Toulouse School of Economics, University of Southern Denmark, University of Liverpool
2014-2015	Johns Hopkins University, Indiana University, Osaka University, Institute of Statistical Mathematics, Hitotsubashi University
2013-2014	Hitotsubashi University, Kyoto University, Okayama University
2012-2013	City University London, Bilkent University, University of Cyprus
2011-2012	University of Wisconsin-Madison, Indiana University, University of Montreal, Toulouse School of Economics, University of Leicester, University of Aarhus, University of Copenhagen, University of Mannheim, University of Southampton
2010-2011	University of Oxford (Statistics Department)
2009-2010	Indiana University, Oxford-Man Institute
2008-2009	Nuffield College, London School of Economics, University of Manchester, Institute of Statistical Mathematics, Okayama University
2007-2008	University of Wisconsin-Madison, Columbia University, University of Oxford, University of Connecticut, Texas A&M University, University of Tokyo, Kyoto University, Osaka University
2006-2007	University of Wisconsin-Madison, Osaka University, Kyoto University

**Referee/Reviewer Activity:**

*Annals of Applied Probability; Annals of the Institute of Statistical Mathematics; Bernoulli; Japan and the World Economy; Japan Society for the Promotion of Science London Fellowship; Journal of Applied Econometrics; Journal of Business and Economic Statistics; Journal of Econometrics; Journal of Economics Dynamics and Control; Journal of Financial Econometrics; Journal of Nonparametric Statistics; Econometric Reviews; Econometrics and Statistics; Econometric Theory; Economics Letters; Finance and Stochastics; Oxford Bulletin of Economics and Statistics; New Generation Computing; Proceedings of the Institute of Statistical Mathematics; Review of Economic Studies; Scandinavian Journal of Statistics*

**Editorial Activity:**

2021 - Co-Editor, *Economics Open-Access Journal*

## List of Publications

### Peer reviewed:

1. Debopam Bhattacharya, Pascaline Dupas & Shin Kanaya (2022) Demand and welfare analysis in discrete choice models with social interactions. Forthcoming in *The Review of Economic Studies*.
2. Debopam Bhattacharya, Shin Kanaya & Margaret Stevens (2017) Are university admissions academically fair? *The Review of Economics and Statistics* 99, 449-464.
3. Shin Kanaya (2017) Convergence rates of sums of  $\alpha$ -mixing triangular arrays: With an application to nonparametric drift function estimation of continuous-time processes, *Econometric Theory* 33, 1121-1153.
4. Shin Kanaya (2017) Uniform convergence rates of kernel-based nonparametric estimators for continuous time diffusion processes: A damping function approach, *Econometric Theory* 33, 874-914.
5. Shin Kanaya & Dennis Kristensen (2016) Estimation of stochastic volatility models by nonparametric filtering, *Econometric Theory* 32, 861-916.
6. Jiti Gao, Shin Kanaya, Degui Li & Dag Tjøstheim (2015) Uniform consistency for nonparametric estimators in null recurrent time series, *Econometric Theory* 31, 911-952.
7. Shin Kanaya & Taisuke Otsu (2012) Large deviations for realized volatility, *Stochastic Processes and their Applications* 122, 546-581.

### Unpublished manuscripts, work-in-progress projects:

1. Type I and type II error probabilities in the courtroom, with Luke Taylor (University of Aarhus), submitted for publication.
2. Uniform convergence of smoothed distribution functions with an application to Delta method for the Lorenz curve, with Debopam Bhattacharya (University of Cambridge).
3. Asymptotic properties of kernel estimators of multivariate diffusion processes, with Dennis Kristensen, (University College London).
4. Nonparametric estimation for decomposable data possibly with mixed-frequency observations.
5. Moduli of continuity of Brownian motion and related processes over an expanding time interval, with Jihyun Kim (Toulouse School of Economics) & Joon Y. Park (Indiana University).
6. Adaptive inference in continuous-time asset pricing factor models, with Dennis Kristensen (University College London) & Yang Zu (University of Nottingham).

7. Uniform convergence rates of kernel estimators with nonstationary regressors and autocorrelated errors, with Dennis Kristensen (University College London).
8. Non-parametric specification testing for continuous-time Markov processes: Do processes follow diffusions?
9. A nonparametric test for stationarity in continuous-time Markov processes.
10. An ambiguity-free asset and its bid-ask spread under maxi-min expected utility, with Takao Asano (Okayama University) & Satoru Takahashi (National Singapore University), revision requested, under revision.

**Other papers:**

1. Debopam Bhattacharya, Pascaline Dupas & Shin Kanaya (2013) Estimating the impact of means-tested subsidies under treatment externalities with application to anti-malarial bednets. NBER Working Paper No. 18833, 57 pages.
2. Shin Kanaya & Hideaki Hirata (2007) The structural approach to default risk revisited: Calibration to stock and bond market data (in Japanese, peer reviewed), *JCER Economic Journal* 56, 26-51.
3. Masahiro Higo, Tomohiro Sugo & Shin Kanaya (2001) Japanese household saving rates and their determinants: An analysis of household surveys (in Japanese), Bank of Japan Working Paper Series WP01-4, Research and Statistics Department, Bank of Japan.