# Lung-Fei Lee University Chaired Professor of Econometrics The Ohio State University

November 2019

# ADDRESS

#### Office:

Department of Economics The Ohio State University 410 Arps Hall 1945 North High Street Columbus, Ohio 43210-1172

## Telephone:

Office: (614) 292-5508 Fax: (614) 292-4192

### E-mail:

lee.1777@osu.edu

### PERSONAL DATA

Date of Birth: 1948, Chung-shan, Guangdong Province, China.

Citizenship: USA

## **EDUCATION**

B.Sc. in Mathematics, United College, The Chinese University of Hong Kong, Hong Kong, 1971

M.Math. in Pure Mathematics, University of Waterloo, Ontario, Canada, 1972

M.Phil. in Statistics, University of Waterloo, Ontario, Canada, 1974

M.A. in Economics, University of Rochester, Rochester, New York, 1976

Ph.D. in Economics, University of Rochester, Rochester, New York, 1977

#### ACADEMIC APPOINTMENTS

Assistant Professor, Department of Economics, University of Minnesota, Minneapolis, 1976-1980
Associate Professor, Department of Economics, University of Minnesota, Minneapolis, 1980-1984
Visiting Associate Professor, Center for Econometrics and Decision Sciences, University of Florida,
Gainesville, 1980-1981

Professor, Center for Econometrics and Decision Sciences, University of Florida, Gainesville, 1982-1983

Professor, Department of Economics, University of Minnesota, Minneapolis, 1984-1991

Professor, Department of Economics, The University of Michigan, Ann Arbor, 1991-1996

Professor, Department of Economics, Hong Kong University of Science and Technology, Hong Kong, 1994-2000

Adjunct Professor, Peking University, Oct 1999-Oct 2001.

Adjunct Professor, The Hong Kong University of Science and Technology, July 2004-June 2007; July 2007 - June 2010; July 2010 - June 2013, July 2013-June 2016, July 2016- June 2019.

Adjunct Professor, Shanghai University of Finance and Economics, 2011- May 2018, June 2018-May 2021.

University Chaired Professor, The Ohio State University, Columbus, 2000-

# SCHOLARSHIPS, AWARDS AND HONORS

Fellow of Journal of Econometrics, charter member, elected 1988 Fellow of the Econometric Society, elected 1990

Fellow (academician) of Academia Sinica, Taiwan, China, elected 2000

Fellow of the Spatial Econometrics Association, 2007

Fellow of the Society for Economic Measurement, charter member, 2014

Fulbright Scholar Award, (New Zealand), 1987

Econometric Theory Awards: Multa Scripsit Award, 1997; Plura Scripsit Award, 2000; Plurima Scripsit Award, 2011.

2014 University Distinguished Scholar Award, The Ohio State University, 2014.

Visiting Fellow, Cowles Foundation, Yale University, November 2009-December 2009 Visiting Professor, University of Orléan, France, March 1-16, 2014.

Mathematics Study Monoid Prize in Mathematics, Chinese University of Hong Kong, 1969

Mathematics Study Monoid Prize in Mathematics, Chinese University of Hong Kong, 1970

Teaching Fellowship, Department of Pure Mathematics, University of Waterloo, 1971-1972

Teaching Fellowship, Department of Statistics, University of Waterloo, 1972-1974

Graduate Fellowship, Department of Economics, University of Rochester, 1974-1976

Conibear Prize Winner, Department of Economics, University of Rochester, 1976

Norman M. Kaplan Prize Winner, Department of Economics, University of Rochester, 1976

Who's Who in Taiwan, years 2002, 2003, 2004, 2005, 2008, 2009 Editions, Government Information Office, Republic of China.

Who's Who in the World, 19th Edition, 2002; 20th Edition, 2003; and 21st Edition, 2004; 2018 Edition, Marquis Who's Who, N.J.

Who's Who in America, 57th Edition, 2003; and 58th Edition, 2004; 59th Edition, 2005; 61th Edition, 2007, .

Who's Who in Science and Engineering, 7th Edition, 2003 - 2004, Marquis Who's Who, N.J.

2000 Outstanding Scientists of the 21st Century, 2004 Edition, International Biographical Center, Cambridge, England.

Cambridge Blue Book, 2005, International Biographical Centre, Cambridge, England.

Asia/Pacific, Who's Who, 6th volume, 2006; 7th volume, 2007; 8th volume, 2008, Rifacimento International, India.

Who's Who in American Education, 7th Edition, 2006 - 2007; 8th Edition, 2007-2008 Marquis Who's Who, N.J.

Who's Who in Finance and Business, 35th Edition, 2006-2007; 36th Edition, 2008-2009; 37th Edition, 2009-2010, Marquis, Who's Who, N.J.

Asian Admirable Achievers, Volume III, 2008-2009, Rifacimento International, India.

## RESEARCH GRANT AWARDS

Summer Research Grant, University of Minnesota, 1978.

National Science Foundation Research Grant, July 1978-June 1980.

HEW Research Grant (with Roger Feldman), 1979-1980.

National Science Foundation Research Grant, July 1980-December 1982.

Summer Research Grant, University of Minnesota, 1981.

National Science Foundation Research Grant, May 1983-May 1985.

National Science Foundation Research Grant, June 1985-June 1987.

National Science Foundation Research Grant, (with Hide Ichimura), June 1988-June 1990.

National Science Foundation Research Grant, July 1990-December 1992.

National Science Foundation Research Grant, (grant for workstation), September 1992-August 1993.

National Science Foundation Research Grant, March 1993-March 1995.

Hong Kong University of Science and Technology, DAG grant, 1994-1995.

Hong Kong University of Science and Technology, DAG grant, 1995-1996.

Hong Kong RGC grant, September 1996-August 2000.

National Science Foundation Research Grant, July 2001-June 2004.

Population Research Center Grant, Ohio State U., (with Pat Reagan), August 2006-July 2007.

National Science Foundation Research Grant, August 2005 - July 2008.

National Science Foundation Grant, (Ohio Longitudinal Data Archive), Co-PI (with Olsen, R., Hawley, J., Okelly, M., Laverta, S.), September 2013 - August 2016.

2014 Distinguished Scholar Award, research grant total \$ 20,000 spent within 3 years.

### MEMBERSHIPS IN SCHOLARLY AND PROFESSIONAL ORGANIZATIONS

The Econometric Society

Chinese Economics Association in North America

The Society for Economic Measurement

Honorary Member, The Taiwan Econometric Society, 2011 -

## PROFESSIONAL AND PUBLIC SERVICE

Associate Editor, Journal of Econometrics, 1983-1989

Associate Editor, Abstracts of Working Papers in Economics, 1986-1994

Associate Editor, The Japanese Economic Review, 1994–2015

Editorial Board, Journal of Applied Econometrics, 1996 - 2011

Editorial Advisory Council, Pacific Economic Review, 1997-2000; 2008-2011

Associate Editor, Journal of Human Capital, 2006-2010

Advisory Board of Editors, Palgrave Handbooks of Econometrics, 2003

Editorial Board, Letters in Spatial and Resource Sciences, 2009–2017

Associate Editor, Regional Science and Urban Economics, 2012–2018

Advisory Editor, Macroeconomic Dynamics, 1996-

Editorial Board, Annals of Economics and Finance, 2000-

Editorial Board, Foundations and Trends<sup>TM</sup> in Econometrics, 2005–

Editorial Board, Global Journal of Economics, 2009-

Editor in Chief (one of three chief editors), Journal of Spatial Econometrics, 2020-2012.

Vice President, Chinese Economics Association in North America, 1993

President elect, Chinese Economics Association in North America, 1996

President, Chinese Economics Association in North America, 1997

Member of the Advisory Committee, Chinese Economics Association in North America, 2000-2001.

Member of the Council of the Econometric Society 2000-2002.

Member of the Advisory Committee, SETA (The Symposium on Econometric Theory and Applications), 2007-2010.

Member of the Academic Advisory Committee, Economics Institute of Academia Sinica, Taiwan, 2004-2007; 2008-2010; 2011-2013, 2014-2016, 2017-2019.

Member of the Advisory Committee, The Taiwan Econometric Society, 2008 –

Programme Committee Co-Chair, The Far Eastern Meetings of the Econometric Society (FEMES), 1997.

Programme Committee, The Far Eastern Meetings of the Econometric Society (FEMES), 1999.

Aigner Award Committee, Journal of Econometrics, 2003.

Advisory Committee, The Far Eastern Meeting of the Econometric Society (FEMES), 2006.

Programme Committee, The Far Eastern Meeting of the Econometric Society (FEMES), 2007.

A Keynote Speaker, Spatial Econometrics Association, Second World Conference, November 18-19, 2008, New York City.

A Keynote Lecturer, 9th International Workshop Spatial Econometrics and Statistics, June 24-25, 2010, Universite of d'Orleans, France.

External thesis committee member (Autres membres du jury) of Dr. Nicolas Debarsy, FACULTES UNIVERSITAIRES NOTRE DAME DE LA PAIX, Belgium, 2011.

Member of the Econometric Society China Meeting Program Committee, 2012.

A keynote speaker, Econometrics of Social Interaction Symposium, May 2013, University of York, UK.

Invited speaker, Cross-sectional Dependence in Panel Data Models, May 2013, University of Cambridge, UK.

Scientific Advisory Board, Spatial Statistics Conference, June 2013, Ohio, USA.

Comité Scientifique, 12th International Workshop, Spatial Econometrics and Statistics, June 2013, Orléan, France.

Scientific Committee, World Conference of the Spatial Econometrics Association, July 2013, Washington DC, USA.

Program Committee, the 4th Shanghai Econometric Workshop, June 2014.

Program Committee Co-chair, the Econometric Society Asian Meeting, June 2014, Taiwan.

Program Committee Co-chair, China Meeting of the Econometric Society, June 2013-December 2016. Invited keynote speaker, 26th (EC)<sup>2</sup> Conference, 'Theory and Practice of Spatial Econometrics', Spatial Economics & Econometrics Centre (SEEC). Heriot-Watt University. Edinburgh. 18-19 December

tial Economics & Econometrics Centre (SEEC), Heriot-Watt University, Edinburgh, 18-19 December 2015.

Scientific Committee, Invited speaker, 15th international workshop on spatial econometrics and statistics, Orleans, France, May 26-27, 2016

Keynote speaker, the 3rd Shandong Econometrics Conference, Center for Economic Research, Shandong University, Jinan, China, June 17, 2016.

Program Committee, the 6th Shanghai Econometric Workshop, SUFE, Shanghai, China, June 22-23, 2016.

China Committee, the 3rd China Meeting of the Econometric Society, Chengdu, China, June 25-27, 2016.

Scientific Committee, 16th International Workshop on Spatial Econometrics and Statistics, Avignon, France, May 17-18, 2017.

Advisory Committee, Program Committee, 2017 Asian Meeting of the Econometric Society, CUHK, Hong Kong, June 3-5, 2017.

Invited speaker and session organizer, 2017 China Meeting of the Econometric Society, Wuhan, China, June 9-11, 2017.

Keynote speaker, the 11th World Conference of the Spatial Econometrics Association, June 13-15, 2017, SMU, Singapore.

Program Committee, the 7th Shanghai Econometric Workshop, June 2017.

Scientific Committee, the 12th World Conference of the Spatial Econometrics Association, June 13-15, 2017, SMU, Singapore.

Keynote Speaker, Conference on Econometric Theory and Applications, June 7-8, 2018, Institute of Economics, Academica Sinica, Taipei, Taiwan.

Invited lecturer, 2018 China Meeting of the Econometric Society, June 15-17, 2018, Fudan University, Shanghai, China.

Program Committee, the 8th Shanghai Econometric Workshop, June 18-19, 2018, Shanghai, China.

Invited Speaker, Econometric Workshop of Captial University of Economics and Finance, June 10, 2019, Beijing, China.

Advisory Committe of the 2019 Asian Meeting of the Econometric Society (AMES), June 14-16, 2019, Xiamen University, Xiamen, China.

Program Committee of the 2019 China Meeting of the Econometric Society (CMES), June 18-20, 2019, Jinan University, Guanzhou, China.

Program Committee, the 9th Shanghai Econometric Workshop, June 23-24, 2018, Shanghai, China. Lecturer, Summer School of the Econometric Society, July 2-8, Xieman, China.

Invited Speaker, Econometric Workshop of Zhandong University, July 9-10, Weihai, China.

Ad Hoc Local Committee, the 2019 Midwest Econometrics Group (MEG) Meeting, October 11-12, 2019, The Ohio State University, Columbus, Ohio, USA.

Scientific Committee, the 13th World Conference of the Spatial Econometrics Association, November 14-15, 2019, Pittsburg, PA, USA.

#### UNIVERSITY SERVICE

Business School Substantiation and Promotion Committee, HKUST, 1994-1995

University Senate Committee, HKUST, 1995-1996, 1997-1998

Senate Research Committee, HKUST, 1997-1998

Promotion and Tenure Committee, College of Social and Behavioral Sciences, OSU, 2005-2008; Spring 2014.

Department of Economics Chair Search Committee, College of Social and Behavioral Science, OSU, 2007-2008

#### Ph.D SUPERVISION AT OHIO STATE UNIVERSITY

Mr. Ji Tao, Ph.D 2005, Ohio State University (principal advisor); first job at Shanghai University of Finance and Economics, Shanghai, China.

Ms. Xu Lin, Ph.D 2006, Ohio State University (principal advisor); first job at Tsinghua University, Beijing, China; Wayne State University, Michigan, USA, since 2009.

Mr. Bin Yu, Ph.D 2007, Ohio State University (principal advisor); first job at Ameriprice Financial, USA.

Mr. Xiaodong Liu, Ph.D 2007, Ohio State University (co-advisor); first job, assistant professor, University of Colorado at Boulder, USA.

Mr. Jihai Yu, Ph.D 2007, Ohio State University (co-advisor); first job, assistant professor, University of Kentucky at Lexington, USA.

Ms. Ji Li, Ph.D 2007, Ohio State University (principle advisor); first job at Capital One Inc., USA.

Ms. Hua Kiefer, Ph.D 2007, Ohio State University (co-advisor); first job, visiting assistant professor, Texas Tech., USA.

Mr. Sang Yeob Lee, Ph.D 2008, Ohio State University (co-advisor); first job, assistant professor, San Francisco State University, USA.

Ms. Youxin Hu, Ph.D 2009, Ohio State University (co-advisor); first job, assistant professor, Southwest University of Finance and Economics, China.

Mr. Wei Wang, Ph.D 2010, Ohio State University (principle advisor); first job, assistant professor, Shanghai Jiao Tong University, China.

Ms. Yoon Hae Oh, Ph.D 2012, Ohio State University (principle advisor); first job, researcher, Korean Development Institute, Korea.

Mr. Fei Jin, 2013, Ohio State University (principle advisor); first job, assistant professor, Shanghai University of Finance and Economics, Shanghai, China.

Mr. Chih-Sheng Hsieh, 2013, Ohio State University (principle advisor); first job, assistant professor, Chinese University of Hong Kong, Hong Kong.

Ms. Xi Qu, 2013, Ohio State University (principle advisor); first job, assistant professor, Shanghai Jiao Tong University, China.

Mr. Yan Bao, 2013, Ohio State University (principle advisor); first job at Moody's Analytics, San Francisco, California, USA.

Mr. Xiaoyi Han, 2014, Ohio State University (principle advisor); first job, assistant professor, Xiamen University, China.

Ms. Chao Yang, 2015, Ohio State University (principle advisor); first job, assistant professor, Shanghai University of Finance and Economics, Shanghai, China.

Mr. Wei Shi, 2016, Ohio State University (principle advisor); first job, assistant professor, Jinan University, China.

Mr. Xingbai Xu, 2016, Ohio State University (principle advisor); first job, assistant professor, Xiamen University, China.

Mr. Kai Yang, 2016, Ohio State University (principle advisor); first job, assistant professor, Shanghai University of Finance and Economics, Shanghai, China.

Ms. Wei Cheng, 2017, Ohio State University (co-advisor); first job, assistant professor, East China University of Science and Technology, Shanghai, China.

Mr. Shin-Yi Wu, 2017, Ohio State University (principle advisor);

Ms. Tuo Liu, 2017, Ohio State University (principle advisor); first job, assistant professor, Xiamen University, China.

Mr. Hanbat Jeong, 2019, Ohio State University (principle advisor).

#### **BIBLIOGRAPHY:**

#### **PUBLICATIONS:**

- 1 Lee, Lung-Fei (1972). The theorems of Debreu and Peleg for ordered topological spaces. *Econometrica* 40, 1151-1153.
- 2 Maddala, G.S., and Lung-Fei Lee (1976). Recursive models with qualitative endogenous variables. Annals of Economic and Social Measurement 5, 525-545. Also a related reply in Econometrica 48, 765-766.
- 3 Lee, Lung-Fei (1978). Unionism and wage rates: a simultaneous equations model with qualitative and limited dependent variables. *International Economic Review* 19, 415-433.
- 4 Lee, Lung-Fei and William G. Tyler (1978). The stochastic frontier production function and average efficiency: an empirical analysis. *Journal of Econometrics* 7, 385-389.
- 5 Lee, Lung-Fei and R.P. Trost (1979). Estimation of some limited dependent variable models with an application to housing demand. *Journal of Econometrics* 8, 357-383.
- 6 Lee, Lung-Fei (1979). On the estimation of multiple equations error components regression models.

  American Statistical Association Proceedings of Economic and Business Section, 310-313.
- 7 Lee, Lung-Fei; G.S. Maddala and R.P. Trost (1979). Testing for structural change by D-methods in switching simultaneous equation models. American Statistical Association Proceedings of Economic and Business Section, 461-464.
- 8 Lee, Lung-Fei (1979). Estimation and identification in binary choice models with limited dependent variables. *Econometrica* 47, 977-996.
- 9 Kenny, L.W.; Lung-Fei Lee; G.S. Maddala, and R.P. Trost (1979). Returns to college education: an investigation of self-selection bias based on the project talent data. *International Economic Review* 20, 775-789.
- 10 Tyler, W.G., and Lung-Fei Lee (1979). On estimating stochastic frontier production functions and average efficiency: an empirical analysis with Columbian micro data. *The Review of Economics and Statistics* LXI, 436-438.
- 11 Lee, Lung-Fei (1979). On the first and second moments of the truncated multi-normal distribution and a simple estimator. *Economics Letters* 3, 165-169.
- 12 Lee, Lung-Fei (1979). Mixed logit and fully recursive logit models. Economics Letters 3, 363-368.
- 13 Lee, Lung-Fei (1979). On comparisons of normal and logistic models in the bivariate dichotomous Analysis. *Economics Letters* 4, 151-155.
- 14 Lee, Lung-Fei (1979). On the generalized Berkson's estimator in the general qualitative response models. *Economics Letters* 4, 243-249.
- 15 Lee, Lung-Fei; G.S. Maddala and R.P. Trost (1980). Asymptotic covariance matrices of two-stage probit and two-stage tobit methods for simultaneous equations models with selectivity. *Econometrica* 48, 491-503.
- 16 Lee, Lung-Fei (1981). Efficient estimation of dynamic error components models with panel data. In *Time Series Analysis*, O.D. Anderson and M.R. Perryman (ed), pp. 267-285. Amsterdam: North-Holland.
- 17 Feldman R.; R. Hoffbeck, and Lung-Fei Lee (1981). Hospital labor unions: description and analysis. In *Handbook of Health Care Human Resources Management*, ed. N. Metzger, pp. 505-528. Maryland: An Aspen Publication.
- 18 Pitt, Mark M. and Lung-Fei Lee (1981). The measurement and sources of technical inefficiency in the Indonesian weaving industry. *Journal of Development Economics* 9, 43-64.
- 19 Lee, Lung-Fei (1981). Recursive probability models and multivariate log-linear probability models for the analysis of qualitative data. *Journal of Econometrics* 16, 51-69.
- 20 Lee, Lung-Fei (1981). Simultaneous equations models with discrete and censored variables. Chapter 9, pp. 346-364 in *Econometric Analysis of Discrete Data*. C.F. Manski and D. McFadden (eds). Cambridge, Massachusetts: MIT Press.
- 21 Lee, Lung-Fei (1982). Health and wage: a simultaneous equations model with multiple discrete indicators. *International Economic Review* 23, 199-221.
- 22 Lee, Lung-Fei (1982). Some approaches to the correction of selectivity bias. *The Review of Economic Studies* XLIX, 355-372.

- 23 Lee, Lung-Fei (1982). Tests for normality in the econometric disequilibrium markets model. *Journal of Econometrics* 19, 109-123.
- 24 Lee, Lung-Fei (1982). Specification error in multinomial logit models: analysis of the omitted variables bias. *Journal of Econometrics* 20, 197-209.
- 25 Lee, Lung-Fei (1983). Generalized econometric models with selectivity. Econometrica 51, 507-512.
- 26 Lee, Lung-Fei (1983). On maximum likelihood estimation of stochastic frontier production models. Journal of Econometrics 23, 269-274.
- 27 Lee, Lung-Fei (1983). A test for distributional assumptions for the stochastic frontier functions. Journal of Econometrics 22, 245-267.
- 28 Lee, Lung-Fei (1983). The determination of moments of the doubly truncation multivariate normal tobit model. *Economics Letters* 11, 245-250.
- 29 Trost, Robert P. and Lung-Fei Lee (1984). Technical training and earnings: a polychotomous choice model with selectivity. *The Review of Economics and Statistics LXVI*, 151-156.
- 30 Lee, Lung-Fei and R.H. Porter (1984). Switching regression models with imperfect sample separation information—with an application on cartel stability. *Econometrica* 52, 391-418.
- 31 Lee, Lung-Fei (1984). Tests for the bivariate normal distribution in the econometric models with selectivity. *Econometrica* 52, 843-863.
- 32 Lee, Lung-Fei (1984). Maximum likelihood estimation and specification test for non-normal distribution assumption for the accelerated failure time models. *Journal of Econometrics* 24, 159-179.
- 33 Bera, A.K.; C.M. Jarque and Lung-Fei Lee (1984). Testing for the normality assumption in the limited dependent variable models. *International Economic Review* 25, 563-578.
- 34 Lee, Lung-Fei (1984). Regime classification in the disequilibrium market models. *Economics Letters* 14, 187-193.
- 35 Lee, Lung-Fei (1984). The likelihood function and a test for serial correlation in a disequilibrium market model. *Economics Letters* 14, 195-200.
- 36 Lee, Lung-Fei (1984). Comment on 'Tests of Specification in Econometrics' by P.A. Ruud. Econometric Reviews 3, 257-259.
- 37 Cosslett S.R., and Lung-Fei Lee (1985). Serial correlation in latent discrete variable models. *Journal of Econometrics* 27, 79-97.
- 38 Lung-Fei Lee and G.S. Maddala (1985). The common structure of tests for selectivity bias, serial correlation, heteroskedasticity and non-normality in the tobit model. *International Economics Review* 26, 1-20.
- 39 Lee, Lung-Fei and A. Chesher (1986). Specification testing when score test statistics are identically zero. Journal of Econometrics 31, 121-149.
- 40 Lee, Lung-Fei and Mark M. Pitt (1986). Microeconometric demand systems with binding non-negativity constraints: the dual approach. *Econometrica* 54, 1237-1242.
- 41 Lee, Lung-Fei (1986). Specification tests for poisson regression models. *International Economic Review* 27, 689-706.
- 42 Lee, Lung-Fei (1986). The specification of multi-market disequilibrium econometric models. *Journal of Econometrics* 32, 297-332.
- 43 Lee, Lung-Fei (1987). Nonparametric testing of discrete panel data models. *Journal of Econometrics* 34, 147-177.
- 44 Lung-Fei Lee and Mark M. Pitt (1987). Microeconomic models of rationing, imperfect markets, and non-negativity constraints. *Journal of Econometrics* 36, 89-110.
- 45 Ichimura, H. and Lung-Fei Lee (1991). Semiparametric estimation of multiple index models: single equation estimation. Chapter 1 in *Nonparametric and Semiparametric Methods in Econometrics and Statistics*. Ed. W.A. Barnett, J. Powell, and G. Tauchen, pp. 3-49. Cambridge University Press, New York, NY.
- 46 Lee, Lung-Fei (1992). Semiparametric nonlinear least squares estimation of truncation regression models. *Econometric Theory* 8, 52-94.
- 47 Chiang, J., and Lung-Fei Lee (1992). Discrete/continuous models of consumer demand with binding non-negativity constraints. *Journal of Econometrics* 54, 79-93.

- 48 Lee, Lung-Fei (1992). Amemiya's generalized least squares and tests of overidentification in simultaneous equation models with qualitative or limited dependent variables. *Econometric Reviews* 11, 319-328.
- 49 Lee, Lung-Fei (1992). On efficiency of methods of simulated moments and maximum simulated likelihood estimation of discrete response models. *Econometric Theory* 8, 518-552.
- 50 Lee, Lung-Fei (1993). Asymptotic distribution of the maximum likelihood estimator for a stochastic frontier function model with a singular information matrix. *Econometric Theory* 9, 413-430.
- 51 Lee, Lung-Fei (1993). Multivariate tobit models in econometrics. Chapter 6 in *Handbook of Statistics* 11 Econometrics, ed. G.S. Maddala, C.R. Rao and H.D. Vinod, Elsevier Science Publishers B.V., The Netherlands.
- 52 Lee, Lung-Fei (1994). Semiparametric two-stage estimation of sample selection models subject to tobit-type selection rules. *Journal of Econometrics* 61, 305-344.
- 53 Lee, Lung-Fei (1994). Semiparametric instrumental variable estimation of simultaneous equation sample selection models. *Journal of Econometrics* 63, 341-388.
- 54 Lee, Lung-Fei (1994). Rational expectations in limited dependent variable models. *Economics Letters* 46, 97-104.
- 55 Sepanski, Jungsywan H. and Lung-Fei Lee (1994). Semiparametric estimation of nonlinear errors-invariables models with validation study. *Nonparametric Statistics* 4, 365-394.
- 56 Lee, Lung-Fei and G.S. Maddala (1994). Sequential selection rules and selectivity in discrete choice econometric models. In *Econometric Methods and Applications: Selected Papers of G.S. Maddala*, Vol. II. Aldershot, UK: Edward Elgar.
- 57 Lee, Lung-Fei (1995). Semiparametric maximum likelihood estimation of polychotomous and sequential choice models. *Journal of Econometrics* 65, 381-428.
- 58 Lee, Lung-Fei and Jungsywan H. Sepanski (1995). Estimation of linear and nonlinear errors-invariables models with validation information. *Journal of the American Statistical Association* 90, 130-140.
- 59 Lee, Lung-Fei (1995). Asymptotic bias in maximum simulated likelihood estimation of discrete choice models. *Econometric Theory* 11, 437-483.
- 60 Lee, Lung-Fei (1995). The computation of opportunity costs in polychotomous choice models with selectivity. *Review of Economics and Statistics* LXVII, 423-435.
- 61 Lee, Lung-Fei; Mark R. Rosenzweig and Mark Pitt (1997). The effects of improved nutrition, sanitation and water purity on child health in high-mortality populations. *Journal of Econometrics* 77, 209-235.
- 62 Lee, Lung-Fei (1997). Simulation estimation of dynamic switching regression and dynamic disequilibrium models. *Journal of Econometrics* 78, 179-204.
- 63 Lee, Lung-Fei (1997). A smooth likelihood simulator for dynamic disequilibrium models. *Journal of Econometrics* 78, 257-294.
- 64 Lee, Lung-Fei (1997). A simulated likelihood estimator for qualitative response models with sufficient statistics. *Economics Letters* 57, 23-32.
- 65 Lee, Lung-Fei (1998). Simulated maximum likelihood estimation of dynamic discrete choice statistical models - some monte carlo results. *Journal of Econometrics* 82, 1-35.
- 66 Chen, Songnian and Lung-Fei Lee (1998). Efficient semiparametric scoring estimation of sample selection models. *Econometric Theory* 14, 423-462.
- 67 Lee, Lung-Fei (1998). Semiparametric estimation of simultaneous equation microeconometric models with index restrictions. *The Japanese Economic Review* 49, 343-380.
- 68 Lee, Lung-Fei (1999). Estimation of dynamic limited-dependent rational expectations models. In: Cheng Hsiao, Kajal Lahiri, Lung-Fei Lee and M. Hashem Pesaran, eds., *Analysis of Panels and Limited Dependent Variable Models*, an edited volume in honor of G.S. Maddala, Cambridge U. Press.
- 69 Lee, Lung-Fei (1999). Statistical inference with simulated likelihood functions. *Econometric Theory* 15, 337-360.
- 70 Lee, Lung-Fei (1999). Estimation of dynamic and ARCH to bit models. *Journal of Econometrics* 92, 355-390.

- 71 Lee, Lung-Fei (2000). Self-selection. In Companion in Econometric Theory, edited by Badi H. Baltagi, Basil Blackwell, Massachusetts.
- 72 Lee, Lung-Fei (2000). A numerical stable quadrature procedure for the one-factor random-component discrete choice model. *Journal of Econometrics* 95, 117-129.
- 73 Lee, Lung-Fei (2001). Simulation estimation of polychotomous-choice sample selection models. In *Nonlinear Statistical Inference*, a Festschrift in honor of Takeshi Amemiya; eds., by Cheng Hsiao, Kimio Morimune, and James Powell, Cambridge U. Press, 2001.
- 74 Lee, Lung-Fei (2001). On the range of correlation coefficients of bivariate ordered discrete random variables. *Econometric Theory* 17, 247-256.
- 75 Kao, Chihwa; Lung-Fei Lee and Mark M. Pitt (2001). Simulated maximum likelihood estimation of the linear expenditure system with binding non-negativity constraints. *Annals of Economics and Finance* 2, 215-235 (a special issue in honor of G.S. Maddala).
- 76 Lee, Lung-Fei (2001). Interpolation, quadrature and stochastic integration. Econometric Theory 17, 933-961.
- 77 Lee, Lung-Fei (2002). Consistency and efficiency of least squares estimation for mixed regressive, spatial autoregressive models. *Econometric Theory* 18, 252-277.
- 78 Lee, Lung-Fei (2003). Best spatial two-stage least squares estimators for a spatial autoregressive model with autoregressive disturbances. *Econometric Reviews* 22, 307-335.
- 79 Zhang, Wei, and Lung-Fei Lee (2004). Simulation estimation of dynamic discrete choice panel models with accelerated importance samplers. *The Econometrics Journal* 7, 120-142.
- 80 Lee, Lung-Fei (2004). Asymptotic distributions of quasi-maximum likelihood estimators for spatial econometric models. *Econometrica* 72, 1899-1926.
- 81 Lee, Lung-Fei (2006). Nonstandard dependent variables models: some common structures of simulated specification tests in multinormal discrete and limited dependent variables models. Chapter 18, pp.662-693, in *Palgrave Handbook in Econometrics: Volume 1, Econometric Theory*, eds., by Terence C. Mills and Kerry Patterson, Palgrave Publishers Ltd.
- 82 Lee, Lung-Fei (2007). GMM and 2SLS estimation of mixed regressive, spatial autoregressive models. Journal of Econometrics 137, 489-514.
- 83 Lee, Lung-Fei (2007). The method of elimination and substitution in the GMM estimation of mixed regressive, spatial autoregressive models. *Journal of Econometrics* 140, 155-189.
- 84 Lee, Lung-Fei (2007). Identification and estimation of econometric models with group interactions, contextual factors and fixed effects. *Journal of Econometrics* 140, 333-374.
- 85 Yu, Jihai; Robert DeJong, and Lung-Fei Lee (2008). Quasi-maximum likelihood estimators for spatial dynamic panel data with fixed effects when both n and T are large. *Journal of Econometrics* 146, 118-134.
- 86 Li, Ji and Lung-Fei Lee (2009). Binary choice under social interaction: an empirical study with and without subjective data of expectation. *Journal of Applied Econometrics* 24, 257-281.
- 87 Lee, Lung-Fei, and Jihai Yu (2009). Spatial nonstationarity and spurious regression: the case with row-normalized spatial weights matrix. Spatial Economic Analysis 4, 301-327.
- 88 Lee, Lung-Fei, and Jihai Yu (2010). Estimation of spatial autoregressive panel data models with fixed effects. *Journal of Econometrics* 154, 165-185.
- 89 Lee, Lung-Fei (2010). Pooling estimates with different rates of convergence the minimum  $\chi^2$  approach: with an emphasis on a social interactions model. *Econometric Theory* 26, 260-299.
- 90 Lee, Lung-Fei and Xiaodong Liu (2010). Efficient GMM estimation of high order spatial autoregressive models with autoregressive disturbances. *Econometric Theory* 26, 187-230.
- 91 Lee, Lung-Fei and Jihai Yu (2010). A spatial dynamic panel data model with both time and individual effects. *Econometric Theory* 26, 564-597.
- 92 Lee, Lung-Fei, Xiaodong Liu, and Xu Lin (2010). Specification and estimation of social interaction models with network structures. *The Econometrics Journal* 13, 145-176.
- 93 Lin, Xu, and Lung-Fei Lee (2010). GMM estimation of spatial autoregressive models with unknown heteroskedasticity. *Journal of Econometrics* 157, 34-52.
- 94 Lee, Lung-Fei, and Jihai Yu (2010). Some recent developments in spatial panel data models. *Regional Science and Urban Economics* 40, 255-271.

- 95 Yu, Jihai, and Lung-Fei Lee (2010). Estimation of unit root spatial dynamic panel data models. *Econometric Theory* 26, 1332-1362.
- 96 Liu, Xiaodong, and Lung-Fei Lee (2010). Identification and GMM estimation of social interaction models with centrality. *Journal of Econometrics* 159, 99-115.
- 97 Liu, Xiaodong, Lung-Fei Lee, and Christopher Bollinger (2010). Improved efficient quasi maximum likelihood estimator of spatial autoregressive models. *Journal of Econometrics* 159, 303-319.
- 98 Lee, Lung-Fei and Jihai Yu (2010). Estimation of spatial panels. Foundations and Trends in Econometrics 4: No 1-2, 1-164.
- 99 Lee, Lung-Fei and Jihai Yu (2011). A unified estimation approach for spatial dynamic panel data models: stability, spatial cointegration and explosive roots. Chapter 14 in *Handbook on Empirical Economics and Finance*, edited by Aman Ullah and David E. Giles, pp.395-434, Chapman and Hall/CRC Press, Florida.
- 100 Shang, Qingyan and Lung-Fei Lee (2011). Two-step estimation of endogenous and exogenous group effects. *Econometric Reviews* 30, 173 207.
- 101 Yu, Jihai, Robert DeJong, and Lung-Fei Lee (2012). Estimation for spatial dynamic panel data with fixed effects: The case of spatial cointegration. *Journal of Econometrics* 167, 16 37.
- 102 Qu, Xi and Lung-Fei Lee (2012). LM tests for spatial correlation in spatial models with limited dependent variables. Regional Science and Urban Economics 42, 430-445.
- 103 Jin, Fei and Lung-Fei Lee (2012). Approximated likelihood and root estimators for spatial interaction in spatial autoregressive models. *Regional Science and Urban Economics* 42, 446-458.
- 104 Lee, Lung-Fei and Jihai Yu (2012). QML estimation of spatial dynamic panel data models with time varying spatial weights matrices. *Spatial Economic Analysis* 7, 31-74.
- 105 Yu, Jihai and Lung-Fei Lee (2012). Convergence: a spatial dynamic panel data approach. *Global Journal of Economics* 1, Issue 1, 36 pages.
- 106 Lee, Lung-Fei and Jihai Yu (2012). Spatial panels: random components vs fixed effects. *International Economic Review* 53, 1369-1412.
- 107 Liu, Xiaodong, John Kagel and Lung-Fei Lee (2012). Dynamic discrete choice models with lagged social interactions: with an application to a signaling game experiment. *Journal of Applied Econo*metrics 27, 1037-1058.
- 108 Lee, Lung-Fei and Jihai Yu (2012). The  $C(\alpha)$ -type gradient test for spatial dependence in spatial autoregressive models. Letters in Spatial and Resource Sciences 5, 119-135.
- 109 Wang, Wei and Lung-Fei Lee (2013). Estimation of spatial autoregressive models with randomly missing data in the dependent variable. *The Econometrics Journal* 16, 73-102.
- 110 Han, Xiaoyi and Lung-Fei Lee (2013). Model selection using J-test for the spatial autoregressive model vs. the matrix exponential spatial model. *Regional Science and Urban Economics* 43, 250-271.
- 111 Qu, Xi and Lung-Fei Lee (2013). Locally most powerful tests for spatial interactions in the simultaneous SAR tobit model. *Regional Science and Urban Economics* 43, 307-321.
- 112 Liu, Xiaodong and Lung-Fei Lee (2013). Two stage least squares estimation of spatial autoregressive models with endogenous regressors and many instruments. *Econometric Reviews* 32(5-6), 734-753.
- 113 Wang, Wei and Lung-Fei Lee (2013). Estimation of spatial panel data models with randomly missing data in the dependent variable. *Regional Science and Urban Economics* 43, 521-538.
- 114 Jin, Fei and Lung-Fei Lee (2013). Cox-type tests for competing spatial autoregressive models with spatial autoregressive disturbances. Regional Science and Urban Economics 43, 590-616.
- 115 Jin, Fei and Lung-Fei Lee (2013). Generalized spatial two stage least squares estimation of spatial autoregressive models with autoregressive disturbances in the presence of endogenous regressors and many instruments. *Econometrics* (open access) 1(1), 71-114.
- 116 Lee, Lung-Fei and Jihai Yu (2013). Near unit root in the spatial autoregressive model. *Spatial Economic Analysis* 8, 314-351.
- 117 Han, Xiaoyi and Lung-Fei Lee (2013). Bayesian estimation and model selection for spatial Durbin error model with finite distributed lags. *Regional Science and Urban Economics* 43, 816-837.
- 118 Lee, Lung-Fei, Ji Li and Xu Lin (2014). Binary choice models with social network under heterogeneous rational expectations. *Review of Economics and Statistics* 96, 402-417.

- 119 Lee, Lung-Fei and Jihai Yu (2014). Spatial panels. Chapter 5 in *The Oxford Handbook of Panel Data*, edited by Badi H. Baltagi, Oxford University Press, Oxford.
- 120 Lee, Lung-Fei and Jihai Yu (2014). Efficient GMM estimation of spatial dynamic panel data models with fixed effects. *Journal of Econometrics* 180, 174-197.
- 121 Tao, Ji and Lung-Fei Lee (2014). A social interaction model with an extreme order statistic. *The Econometrics Journal* 17, 197-240.
- 122 Lee, Lung-Fei and Jihai Yu (2015). Estimation of fixed effects panel regression models with separable and nonseparable space-time filters. *Journal of Econometrics* 184, 174-192.
- 123 Qu, Xi and Lung-Fei Lee (2015). Estimating a spatial autoregressive model with an endogenous spatial weight matrix. *Journal of Econometrics* 184, 209-232.
- 124 Jin, Fei and Lung-Fei Lee (2015). On the bootstrap for spatial econometric models. *Journal of Econometrics* 184, 295-314.
- 125 Xu, Xingbai and Lung-Fei Lee (2015). A spatial autoregressive model with a nonlinear transformation of the dependent variable. *Journal of Econometrics* 186, 1-18.
- 126 Debarsy, Nicolas; Fei Jin and Lung-Fei Lee (2015). Large sample properties of the matrix exponential spatial specification with an application to FDI. *Journal of Econometrics* 188, 1-21.
- 127 Xu, Xingbai and Lung-Fei Lee (2015). Maximum likelihood estimation of a spatial autoregressive tobit model. *Journal of Econometrics* 188, 264-280.
- 128 Lee, Lung-Fei and Jihai Yu (2016). Identification of spatial Durbin panel models. *Journal of Applied Econometrics* 31, 133-162.
- 129 Hsieh, Chih-Sheng and Lung-Fei Lee (2016). A social interactions model with endogenous friendship formation and selectivity. *Journal of Applied Econometrics* 31, 301-319.
- 130 Han, Xiaoyi and Lung-Fei Lee (2016). Bayesian analysis of spatial panel autoregressive models with time-varying endogenous spatial weight matrices, common factors and random coefficients. *Journal of Business and Economics Statistics* 34, 642-660.
- 131 Qu, Xi; Xiaoliang Wang and Lung-Fei Lee (2016). IV estimation of a spatial dynamic panel model with endogenous spatial weights when T is small. *Econometrics Journal* 19, 261-290.
- 132 Yang, Kai and Lung-Fei Lee (2017). Identification and QML estimation of multivariate and simultaneous spatial autoregressive models. *Journal of Econometrics* 196, 196-214.
- 133 Han, Xiaoyi; Chih-Sheng Hsieh, and Lung-Fei Lee (2017). Estimation and model selection of higher-order spatial autoregressive model: an efficient Bayesian approach. Regional Science and Urban Economics 63, 97-120.
- 134 Qu, Xi; Lung-Fei Lee, and Jihai Yu (2017). QML estimation of spatial dynamic panel data models with endogenous time varying spatial weights matrices. *Journal of Econometrics* 197, 173-201.
- 135 Shi, Wei and Lung-Fei Lee (2017). Spatial dynamic panel data models with interactive fixed effects. Journal of Econometrics 197, 323-347.
- 136 Yang, Chao and Lung-Fei Lee (2017). Social interactions under incomplete information with heterogeneous expectations. *Journal of Econometrics* 198, 65-83.
- 137 Cheng, Wei and Lung-Fei Lee (2017). Testing endogeneity of spatial and social networks. *Regional Science and Urban Economics* 64, 81-97.
- 138 Xu, Xingbai and Lung-Fei Lee (2018). Sieve maximum likelihood estimation of the spatial autoregressive tobit model. *Journal of Econometrics* 203, 96-112.
- 139 Jin, Fei and Lung-Fei Lee (2018). Lasso maximum likelihood estimation of parametric models with singular information matrices. *Econometrics* 6, 8; 24 pages, February 2018.
- 140 Wang, Wei, Lung-Fei Lee and Yan Bao (2018). GMM estimation of the spatial autoregressive model in a system of interrelated networks. Regional Science and Urban Economics 69, 167-198
- 141 Wei, Wang and Lung-Fei Lee (2018). GMM estimation of spatial panel data models with common factors and general space-time filter. *Spatial Economic Analysis* 13, 247-269.
- 142 Shi, Wei and Lung-Fei Lee (2018). The effects of gun control on crimes: a spatial interactive fixed-effects approach. *Empirical Economics* 55, 233-263.
- 143 Yang, Chao; Lung-Fei Lee, and Xi Qu (2018). Tobit models with social interactions: complete vs incomplete information. *Regional Science and Urban Economics* 73, 30-50.

- 144 Jin, Fei and Lung-Fei Lee (2018). Irregular N2SLS and LASSO estimation of the matrix exponential spatial specification model. *Journal of Econometrics* 206, 336-358.
- 145 Shi, Wei; and Lung-Fei Lee (2018). A spatial panel data model with time varying endogenous weights matrices and common factors. *Regional Science and Urban Economics* 72, 6-34.
- 146 Jin, Fei and Lung-Fei Lee (2018). Outer-product-of-gradients tests for spatial autoregressive models.

  Regional Science and Urban Economics 72, 35-57.
- 147 Yang, Chao and Lung-Fei Lee (2018). Strategical interactions on municipal public safety spending with correlated private information. *Regional Science and Urban Economics* 72, 86-102.
- 148 Jin, Fei and Lung-Fei Lee (2019). GEL estimation and tests of spatial autoregressive models. *Journal of Econometrics* 208, 585-162.
- 149 Xu, Xingbai and Lung-Fei Lee (2019). Theoretical foundations for spatial econometric research. Regional Science and Urban Economics 76, 2-12.
- 150 Yang, Kai and Lung-Fei Lee (2019). Identification and estimation of spatial dynamic panel simultaneous equations models. *Regional Science and Urban Economics* 76, 32-46.
- 151 Liu, Tuo and Lung-Fei Lee (2019). A likelihood ratio test for spatial model selection. *Journal of Econometrics* 213, 434-458.
- 152 Lee, Lung-Fei and Jihai Yu (2018). Decomposition of dynamic panel data models: within and between equations. Forthcoming in *Econometric Journal*, accepted March 2019.
- 153 Jin, Fei; Lung-Fei Lee and Jihai Yu (2018). Sequential and efficient GMM estimation of dynamic short panel data models. Forthcoming in *Econometric Reviews* in 2020; accepted July 2019.
- 154 Jeong, Hanbat and Lung-Fei Lee (2018). Spatial dynamic models with intertemporal optimization: specification and estimation. Submit to *Journal of Econometrics*, August 2018; second revision resubmitted, June 2019; accepted October 2019.

#### Second revision submission

- (1) Hsieh, Chih-Sheng; Lung-Fei Lee, and Vincent Boucher (2019). Specification and estimation of network formation and network interaction models with the exponential probability distribution. Submit to Quantitative Economics, August 2017; revision requested; second revision resubmitted, April 2019.
- (2) Qu, Xi; Lung-Fei Lee, and Chao Yang (2018). Estimation of a SAR model with endogenous spatial weights constructed by bilateral variables. Submit to *Journal of Econometrics*, July 2018; revision request, second revision resubmitted, August 2019.
- (3) Xu, Xingbai; Xiaoyi Han and Lung-Fei Lee (2018). Large sample properties of Bayesian estimation of spatial econometric models. Submit to *Econometric Theory*, October 2018; revision resubmitted, September 2019.
- (4) Jin, Fei and Lung-Fei Lee (2018). Efficient two-step generalized empirical likelihood estimation and tests with martingale differences. Submit to *Econometric Theory*, December 2018; revision resubmitted, September 2019.
- (5) Yang, Kai and Lung-Fei Lee (2017). Estimation of dynamic panel spatial vector autoregression: stability and spatial multivariate cointegration. Submit to *Journal of Econometrics*, June 2017; under revision; revision resubmitted, October 2019.
- (6) Jin, Fei; Lung-Fei Lee, and Jihai Yu (2019). First difference estimation of spatial dynamic panel data models with fixed effects. Submit to *Economics Letters*, September 2019; revised requested Oct 2019.

### Papers under review and Working papers

- (1) Xu, Xingbai and Lung-Fei Lee (2015). Estimation of a binary choice game model with network links. Submitted to *Quantitative Economics*, November 2015; revision requested.
- (2) Jin, Fei and Lung-Fei Lee (2019) Efficient root estimators for spatial autoregressive models with spatial autoregressive disturbances.
- (3) Xu, Xingbai and Lung-Fei Lee (2019) Conditions for  $\alpha$ -Mixing Linear Random Fields: with Applications to Spatial Econometric Models.

## SOME (OLD) WORKING PAPERS

- Estimation of Some Non-Normal Limited Dependent Variable Models. Discussion Paper No. 148, University of Minnesota, Center for Economic Research, 1981.
- Asymptotic Distributions of Maximum Likelihood Estimators in the Sample Selectivity Model and the Stochastic Frontier Function Model with Singular Information Matrices. Manuscript, University of Minnesota, Department of Economics, 1986.
- Semiparametric Minimum-distance Estimation. Manuscript, Department of Economics, The University of Michigan, 1991.
- Specification and Estimation of Count Data Regression and Sample Selection Models A Counting Process and Waiting Time Approach. Manuscript, Department of Economics, HKUST, December 1996.
- Simulated Efficient Estimation of Dynamic Multi-market Disequilibrium Models, manuscript, Department of Economics, HKUST, October 1997.
- Maximum Likelihood Estimation of the Random-Component Probit Panel Model Quadrature vs Stochastic Simulation. Manuscript, Department of Economics, HKUST, October 1998.
- Generalized Method of Moments Estimation of Spatial Autoregressive Processes. Manuscript, Department of Economics, OSU, August 2001.
- Correlation Bounds for Sample Selection Models with Mixed Continuous, Discrete and Count Data Variables. Manuscript, 2003.
- Classical Inference with ML and GMM Estimates with Various Rates of Convergence. Manuscript, 2005.
- Reagan, Patrica B., Lung-Fei Lee, and Robert J. Gitter (2007). Individual Outcomes with Group Effects: The Impact of Gaming on Employment of American Indians.