CURRICULUM VITAE
LIUDAS GIRAITIS

Contact details: School of Economics and Finance, Queen Mary, University of London, Mile End, London E1 4NS
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Present appointment:
Professor of Econometrics, Queen Mary, University of London, 2006 -

Past appointments:
2002 - 2006: Research Fellow/Lecturer, University of York
1996 - 2002: Research officer, London School of Economics
1995- 1996: Research Fellow, Boston University, USA.
1994 - 1995: Research Fellow, Heidelberg University, Germany.
1993 - 1994: Humboldt Research Fellow, Heidelberg University.
1985 - 1992: Scientific Researcher, Institute of Mathematics and Informatics, Lithuanian Academy of Sciences, Vilnius, Lithuania.

Education:
Institute of Mathematics and Informatics of the Lithuanian Academy of Sciences, PhD in Probability Theory and Mathematical Statistics, 1984
Vilnius University, Applied Mathematics - Diploma with distinction 1980.

Academic Awards:
1992: Alexander von Humboldt Research Prize
2005: Lithuanian National Prize for Science

Research interests: Econometrics, Time Series Analysis, Statistics, Probability.

Professional activities:

Associate Editor: Econometric Theory
Editorial Board: Lithuanian Mathematical Journal

Referee Services: Annals of Probability, Annals of Statistics, Biometrika, JASA, Journal of Time Series Analysis, Journal of Multivariate Analysis, Econometrica, Econometric Theory, Journal of Econometrics, Stochastic Processes and their Applications, Probability Theory and Related Fields and others.

Teaching experience: Graduate Further Topics in Econometrics (*Long memory time series*, LSE); Graduate Time Series Analysis (Queen Mary U), Graduate Topics in Financial Econometrics (Queen Mary U, LSE); Undergraduate Statistical Methods in Economics (Queen Mary U); Undergraduate Statistical Theory and Multivariate Analysis (York U).

Graduate Further Topics in Econometrics (*Long memory time series*, LSE)

Short term visiting positions 2008-2015:

Michigan State University, January-May, 2014
Waseda University, Japan, July 2012.
Cowles Foundation, Yale University, September 2010.
Michigan State University, January-March, July-September, 2010
Michigan State University, March-April, August-September, 2009
Michigan State University, May 2008

Grants: KM Abadir, W Distaso, L Giraitis. RES-062-23-0790 Award/Grant Title: *Extraction of trend, cycle, and memory from economic and financial series*, (2008-2010)

Publications

Books:

1. Giraitis, L., Koul, H. and Surgailis, D. (2012). *Large Sample Inference for Long memory Processes*, pp. 587, Imperial College Press.

Journal publications:

1. Giraitis, L., Kapetanios, G., Mansur M. and S. Price (2013). Forecasting under structural change. In: J, Beran et al. (Eds.) Empirical Economics and Financial Research, Springer, pp.401-419, 2015.

2. Giraitis, L., Kapetanios, G. and Yates, T. (2014). Inference on stochastic time-evolving coefficient models. *Journal of Econometrics*, **179**, 46-65.

3. Giraitis, L. Dalla, V. and Koul, H. (2014). Studentization weighted sums of linear processes. *Journal of Time Series Analysis*, **35**, 151-172

4. Giraitis, L., Abadir, K., Distaso, W., and Koul H. (2014) Asymptotic normality for weighted sums of linear processes. *Econometric Theory*, **30**, 252-284.

5. Giraitis, L., Kapetanios, G. and Price, S. (2013). Adaptive forecasting in the presence of recent and ongoing structural change, *Journal of Econometrics*, **177**, 153-170.

6. Giraitis, L. and Bailey, N. (2013). Weak convergence in the near unit root setting. *Statistics and Probability Letters*, *Statistics and Probability Letters*, **83**, 1411-1415

7. Giraitis, L. and Koul, H. (2013) On asymptotic distributions of weighted sums of periodograms, *Bernoulli*, 19(5B), 2389–2413.

8. Giraitis, L. and Phillips, P.C.B. (2012). Mean and autocovariance function estimation near the boundary of stationarity. *Journal of Econometrics*, **169**, 166-178.

9. Giraitis, L., Abadir, K. and Distaso, W. (2011). An I(d) model with trend and cycles. Journal of Econometrics, 163, 186-199.

10. Giraitis, L., Leipus, R. and Surgailis, D. (2010). Aggregation of random coefficient GLARCH(1,1) process, *Econometric Theory*, **26**, 406 - 425.

11. Phillips, P.C.B., Magdalinos T. and Giraitis, L. (2010). Smoothing Local-to-Moderate Unit Root Theory, *Journal of Econometrics*, **158**, 274-279.

12. Abadir, K., Distaso, W. and Giraitis, L. (2009) Two estimators of the long-run variance: Beyond short memory, *Journal of Econometrics*, **50**, 56-70.

13. Giraitis, L., Leipus, R. and Surgailis, D. ARCH(∞) models and long memory properties. In: *Handbook of Financial Time Series*, pp 71-84. Springer, Berlin, 2009.

14. Bhansali, R.J., Giraitis, L. and Kokoszka, P. (2007). Decomposition and asymptotic properties of quadratic forms in linear variables. Stochastic Processes and their Applications, **117**, 71-95.

15. Bhansali, R.J., Giraitis, L. and Kokoszka, P. (2007). Convergence of quadratic forms with nonvanishing diagonal. Statistics & Probability Letters, **77**, 726-734

16. Novak, S. Y., Dalla, V. and Giraitis, L. (2007) Evaluating currency risk in emerging markets. *Acta Appl. Math.*, Acta Appl. Math., **97**, 163-175

17. Giraitis, L., Leipus, R. and Surgailis, D. (2007). In: G Teyssire and A. Kirman (Eds.) Long Memory in Economics, Springer, pp.3-38, 2007.

18. Abadir, K., Distaso, W. and Giraitis, L. (2007). Nonstationarity-extended local Whittle estimation, *Journal of Econometrics*, **141** , 1353-1384.

19. Giraitis, L. and Phillips, P. C. B. (2006). Uniform Limit Theory for Stationary Autoregression, *Journal of Time Series Analysis*, **26**, 51-60.

20. Dalla, V., Giraitis, L. and Hidalgo, J. (2006). Consistent estimation of the memory parameter for nonlinear time series, *Journal of Time Series Analysis*, **27**, 211-251

21. Giraitis, L., Leipus, R. and Phillipe, A. (2006). The test for stationarity versus trends and unit roots for a wide class of dependent errors, *Econometric Theory*, **22**, 989-1029

22. Bhansali, R.J., Giraitis, L. and Kokoszka, P. (2006). Estimation of the long memory parameter by fitting fractionally differenced autoregressive models, *Journal of Multivariate analysis*, **97**, 2101-2130.

23. Giraitis, L., Leipus, R., Robinson, P.M. and Surgailis, D. (2004). LARCH, Leverage and Long Memory. *Journal of Financial Econometrics* **2**, 177-210.

24. Giraitis, L. and Robinson, P.M. Parametric Estimation under Long Range Dependence. In: P. Doukhan, G. Oppenheim and M.S. Taqqu (Eds.) *Long-Range Dependence: Theory and Applications*, Birkhäuser, Boston, 2003.

25. Giraitis, L., Kokoszka, P., Leipus, R. and Teyssiere, G. (2003). Rescaled variance an related tests for long memory in volatility and levels. *Journal of Econometrics* **112**, 265-294.

26. Giraitis, L. and Robinson, P.M. (2003). Edgeworth expansions for semiparametric Whittle estimation of long memory. *Annals of Statistics* **31**, 1325–1375.

27. Giraitis, L., Kokoszka, P., Leipus, R. and Teyssiere, G. (2003). On the power of R/S-type tests fort stationarity against contiguous and semi long memory alternatives, *Acta Applicandae Mathematicae* **78**, 285–299.

28. Giraitis, L. and Surgailis, D. Reduction principle for long memory sequences. In: E. H.G. Dehling, T. Mikosch and M. Sørensen (Eds.) *Empirical Process Techniques for Dependent Data*, Birkhäuser, Boston, 241–255, 2002.

29. Giraitis, L. and Surgailis, D. (2002) ARCH-type bilinear models with double long memory. *Stochastic Processes and Their Applications* **100**, 275–300.

30. Giraitis, L. and Robinson, P.M. (2001). Whittle estimation of ARCH models. *Econometric Theory* **17**, 608–631.

31. Giraitis, L. and Taqqu, M.S. (2001). Functional non-central and central limit theorems for bivariate Appell polynomials. *Journal of Theoretical Probability* **14**, 393–426.

32. Giraitis, L., Hidalgo, J. and Robinson, P.M. (2001). Gaussian estimation of parametric spectral density with unknown pole. *Annals of Statistics* **29**, 987–1023.

33. Giraitis, L., Kokoszka, P. and Leipus, R. (2001). Testing for long memory in the presence of a general trend. *Journal of Applied Probability* **38**, No 4.

34. Giraitis, L., Robinson, P.M. and Surgailis, D. (2000). A model for long memory conditional heteroscedasticity. *Annals of Applied Probability* **10**, 1002–1024.

35. Giraitis, L., Kokoszka, P. and Leipus, R. (2000). Stationary ARCH models: dependence structure and Central Limit Theorem. *Econometric Theory* **16**, 3–22.

36. Giraitis, L., Robinson, P.M. and Samarov, A. (2000). Adaptive rate-optimal semiparametric estimation of the long memory parameter. *Journal of Multivariate analysis* **72**, 183–207.

37. Giraitis, L., Kokoszka, P., Leipus, R. and Teyssiere, G. (2000). Semiparametric estimation of the intensity of long memory in conditional heteroskedasticity. *Statistical Inference for Stochastic Processes* **3**, 113–128.

38. Giraitis, L. and Surgailis, D. (1999). Central Limit Theorem for the Empirical Process. *Journal of Statistical Planning and Inference* **80**, 81–93.

39. Giraitis, L. and Taqqu, M.S. (1999). Convergence of normalized quadratic forms. *Journal of Statistical Planning and Inference* **80**, 15-35.

40. Giraitis, L. and Taqqu, M.S. (1999). Whittle estimator for non-Gaussian long-memory time series. *Annals of Statistics* **27**, 178 –203.

41. Giraitis, L., Robinson, P.M. and Surgailis, D. (1999). Variance-type Estimation of Long Memory. *Stochastic Processes and their Applications* **80**, 1–24.

42. Dahlhaus, R. and Giraitis, L. (1998). On the optimal segment length for parameter estimates for locally stationary time-series. *Journal of Time Series Analysis* **19**, 629 – 655.

43. Giraitis, L., Taqqu, M.S. and Terrin, N. (1998). Limit theorems for bivariate Appell polynomials. Part: II. Non-Central Limit Theorems. *Probability Theory and Related Fields* **110**, 333–367.

44. Giraitis, L. and Taqqu, M.S. (1998). Central limit theorem for quadratic forms with time domain conditions. *The Annals of Probability* **26**, 377–398.

45. Giraitis, L., Samarov, A. and Robinson, P.M. (1997). Rate optimal semiparametric estimation of the memory parameter of the Gaussian time series with long range dependence. *Journal of Time Series Analysis* **18**, 49–60.

46. Giraitis, L. and Koul, H. (1997). Estimation of the dependence parameter in linear regression. *Stochastic Processes and their Applications* **71**, 207–224.

47. Giraitis, L. and Taqqu, M.S. (1997). Limit theorems for bivariate Appell polynomials. Part: I. Central Limit Theorems. *Probability Theory and Related Fields* **107**, 359–381.

48. Giraitis, L., Leipus, R., and Surgailis, D. (1996). The change-point problem for dependent observations. *Journal of Statistical Planning and Inference* **53**, 297–310

49. Giraitis, L., Koul, H. and Surgailis, D. (1996). Asymptotic normality of regression estimators with long memory errors. *Statist. Probab. Letters* **29**, 317–335.

50. Giraitis, L. and Leipus, R. (1995). A generalized fractionally differencing approach in long-memory modelling. *Lithuanian Mathematical Journal* **35**, 65–81.

51. Giraitis, L. and D. Surgailis (1994). Asymptotics of the empirical process of a long memory linear sequence. *Beiträge für Statistik, Universität Heidelberg* **24**, 1.

52. Giraitis, L. and Surgailis, D. (1992). Long-memory shot noise and limit theorems with applications to Burgers' equation . In: *New directions in time series analysis.* Part II (ed D. Brillinger et al.), IMA Volumes in Mathematics and its Applications, Volume 46, Springer-Verlag, Berlin, 153–176.

53. Giraitis, L. and Leipus, R. (1992). Testing and estimating in the change-point problem for the spectral function. *Lithuanian Mathematical Journal* **32**, 2–38.

54. Giraitis, L. and Surgailis, D. (1990). CLT for quadratic forms in strongly dependent variables and application to asymptotical normality of Whittle's estimate. *Probability Theory and Related Fields* **86**, 87–104.

55. Giraitis, L. and Surgailis, D. (1991). On shot noise processes with long-range dependence. In: *Probability theory and Mathematical Statistics.* (Proceedings of the fifth Vilnius Conference vol. II, VSP (Mokslas), Utrecht-Vilnius, 401–408.

56. Giraitis, L. and Surgailis, D. (1991). On shot noise processes atracted to fractional Levy motion. In: *Stable Processes and related topics.* Birkhauser: Boston-Basel-Berlin, 261–274.

57. Giraitis, L. and Leipus, R. (1990). Functional CLT for non-parametric estimates of the spectrum and change-point problem for a spectral function. *Lithuanian Mathematical Journal* **30**, 302–322.

58. Giraitis, L. and Surgailis, D. (1989). Limit theorem for polynomials of a linear process with long-range dependence. *Lithuanian Mathematical Journal* **29**, 128–145.

59. Giraitis, L. and Surgailis, D. (1989). Asymptotic normality of Whittle's estimate for processes with long-range dependence. *Statistics and Control of random processes.* Moscow: Nauka, 28–31.

60. Giraitis, L. (1989). Central limit theorem for polynomial forms I. *Lithuanian Mathematical Journal* **29**, 109-128.

61. Giraitis, L. (1989). Central limit theorem for polynomial forms II. *Lithuanian Mathematical Journal* **29**, 338–350.

62. Giraitis, L. and Surgailis, D. (1986). Multivariate Appell polynomials and the central limit theorem . *In: Dependence in Probability and Statistics.* Birkhauser: Boston-Basel-Stuttgart, 21–71.

63. Giraitis, L. (1985). Central limit theorem for functionals of linear process. *Lithuanian Mathematical Journal* **25**, 25–35.

64. Giraitis, L. and Surgailis, D. (1985). CLT and other limit theorems for functionals of Gaussian processes. *Zeitschrift für Wahrscheinlichkeitstheorie und verwandte Gebiete* **70**, 191–212.

65. Giraitis, L. and Surgailis, D. (1985). A limit theorem for a trangular array of symetric statistics. *In: Statistics and Control of Stochastic Processes (Proceedings of the Steklov Seminar).* Optimisation Software, Inc. New York, 145–166.

66. Giraitis, L. (1984). Distribution of spectral estimates of Ito-Wiener integrals. *Lithuanian Mathematical Journal* **24**, 241–245.

67. Giraitis, L. (1983). Convergence of certain nonlinear transformations of Gaussian sequence to self similar processes. *Lithuanian Mathematical Journal (A translation of Lietuvos matematikos rinkinys)* **23**, 31–39.

Submitted papers

1. Giraitis, L., Kapetanios, G., Wetherilt, A. and F. Žikeš (2013) Estimating the dynamics and persistence of financial networks, with application to UK money market, submitted

2. Giraitis, L., Bailey, N. (2014). Spectral Approach to Parameter-Free Unit Root Testing, submitted.

3. Giraitis, L., Kapetanios, G. and T. Yates (2014). Inference on heteroscadastic multivariate time varying random coefficient models, submitted.

4. Theodoridis, K., Yeates, T., Giraitis, L., Kapetanios, G. (2014). Estimating time-varying DSGE models using minimum distance methods, submitted.

5. Giraitis, L., Surgailis, D and A Skarnulis (2015). Integrated IARCH, FIGARCH and IAR models: origins of long memory,submitted.

6. Giraitis, L. Dalla, V. and Phillips, PCB (2015). Testing Mean Stability of Heteroskedastic Time Series, submitted.

Conference presentations and talks 2008–:

2015

⋄ Workshop on "Developments in Time Series", 2 April, Cambridge University.

⋄ "Central Spring Sectional Meeting" of American Mathematical Society, Michigan State University, March 14-15.

2014

⋄ Non-linear time series analysis thresholding and beyond: In honour of Professor Howell Tong conference on 19-20 September, LSE.

⋄ Conference "Non-and Semiparametric Volatility and Correlation models - Economic Sources of Volatility, Risk Decomposition and Financial Crises", Paderborn, 24 - 26 July. Germany

⋄ Seminar ar Academia Sinica, Taipei, Taiwan, July 7, 2014.

⋄ Workshop "challenges and advances in analysis of complex High dimensional data, Taichung, Taiwan, July 4-5, 2014

⋄ The 3-rd IMS Asia Pacific Rim Meeting, Taipei, June 30-July 3, 2014

⋄ Conference of International Association for Applied Econometrics, London, June 26-28, 2014.

⋄ Workshop on Time Series Econometrics, Frankfurt, June 20 – 21, 2014.

⋄ Conference on Time Series analysis, Banff, Canada, 27 April- 2 May.

2013

⋄ CFE conference, London, December 14-16.

⋄ 14th Advances in Econometrics Conference, Dallas, November 1-3. 2013.

⋄ Joint Statistical Meeting, Montreal, 3-8 August.

⋄ 29th European Meeting of Statisticians, Budapest, 20-25 July.

⋄ "Long-memory symposium" at CREATES, Aarhus Univ., June 26-28.

⋄ "Statistics, science and society: new challenges and opportunities" Chennai, India, 2-5 January.

2012

⋄ "NEBR-NSF Time Series conference" at Texas A&M University, 26-27 October.

⋄ "Conference on Robust Econometric Methods", Lisbon 7-8 September.

⋄ "2nd Institute of Math. Statistics Asia meeting", Tsukuba, Japan, July 2-4.

⋄ "Waseda Statist. Symp. on Time Series and Related Topics", Tokyo, Jul. 5-7

⋄ "Southampton Econometrics Conference", 28-29 June, 2012.

⋄ "Conference of the International Society for Non-Parametric Statistic" in Chakidiki, Greece, June15-19.

⋄ "Statistical models for financial data III", Graz , May 23 -26.

⋄ "Long-Range Dependence, Self-Similarity, and Heavy Tails" conference in Research Triangle Park, North Carolina, from April 19-21.

◇ Invited talk at Vilnius University, September 14.

2011

◇ "5th CSDA International Conference on Computational and Financial Econometrics (CFE'11)" 17-19 December, 2011.

◇ "CIREQ Time Series conference" in Montreal, May 27-28, 2011.

◇ "Dependence in Probability and Statistics", Luminy Marseille, 4-8 April, 2011.

◇ Invited talk at LSE March 2011;

◇ Invited talk at Universidad Carlos III Madrid, May 2011

◇ Invited talk at Universit Libre de Bruxelles, May 2011.

2010

◇ "NBER-NSF conference", Duke University, USA,October 8-9, 2010.

◇ "10th International Vilnius Conference on Probability and Mathematical Statistics", June 2010

◇ "International Symposium on Econometric Theory and Applications", Singapore, May 2010.

◇ Discussant at FMG conference on "Semiparametric Methods in Economics and Finance", London School of Economics, June 2010

◇ "IISA-ISPS2010 International Conference held", Visakhapatnam, India, January.

◇ Invited talk at Southampton University, May 2010.

◇ Invited talk at Yale University, September, 2010.

2009

◇ Academic visit at Michigan state University, March- April, August-September, 2009.

◇ Invited talk at LSE, December 2009.

2008

◇ "P.C.B.Phillips's Conference 2008" and FEMES 08, Singapore, July, 2008.

◇ "Conference (Statistics for Dependent Data)", CREST-ENSAE, Paris, June.

◇ "A conference on Recent Advances in Statistics". In honor of Hira Koul's 65th birthday. Michigan State University East Lansing, Michigan, May, 2008.

◇ SAMOS conference "Limit Theorems", Paris, January, 2008.

◇ 1st "London and Oxbridge Time Series Workshop", Institute for Fiscal Studies, London, January, 2008.