## PERSONAL INFORMATION

Name	Morten Ørregaard Nielsen
Current position	Professor of Economics, Dept. of Economics and Business Economics, Aarhus University.
Mailing address	Department of Economics and Business Economics Aarhus University Fuglesangs Alle 4 8210 Aarhus V Denmark

E-addresses   Email: mon@econ.au.dk
               Web: sites.google.com/view/mortennielsen

Personal   Born 1976, Danish citizen
               Married to Marie-Louise Vierø, Professor of Economics, Aarhus University
               Children: Adam (2009), Philippa (2011), Cecilia (2015)
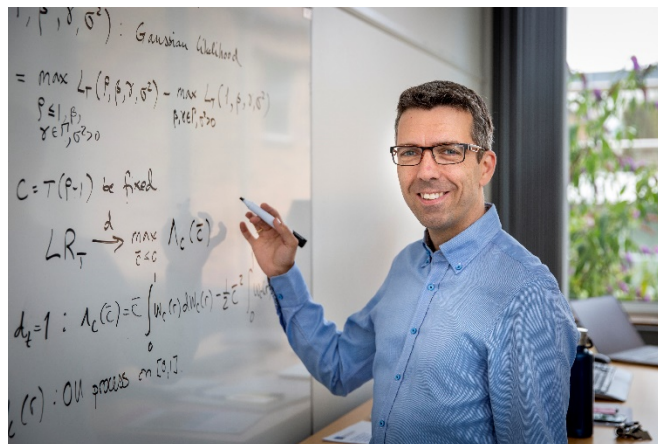
RESEARCH INTERESTS

- ➢ Estimation and inference in fractional integration and cointegration models
- ➢ Semiparametric analysis of long memory processes
- ➢ Financial econometrics and high frequency data
- ➢ Unit root and cointegration testing
- ➢ Cluster-robust inference
- ➢ Bootstrap methods for clustered data

TEACHING INTERESTS

- ➢ Econometrics
- ➢ Time series analysis
- ➢ Probability and statistics
- ➢ Empirical finance

PRIMARY APPOINTMENTS

2021 –	Professor, Dept. of Economics and Business Economics, Aarhus University.
2013 –2021	David Chadwick Smith Chair in Economics, Dept. of Economics, Queen's University.
2012 – 2021	Canada Research Chair in Time Series Econometrics (tier 2), Dept. of Economics, Queen's U.

2011 –2021	Professor, Dept. of Economics, Queen's University.
2008 –2013	Stephen J. R. Smith Faculty Fellow, Dept. of Economics, Queen's University.
2008 –2011	Associate Professor (with tenure), Dept. of Economics, Queen's University.
2003 –2008	Assistant Professor, Dept. of Economics, Cornell University.
Jan. 2003 – Aug. 2003	Post-doctoral research fellow, Dept. of Economics, Aarhus University.

SECONDARY AFFILIATIONS AND LONGER-TERM VISITS

July 2019 – March 2020	Visiting Fellow, Research School of Economics, Australian National University.
Jan. 2016 – June 2016	Visitor, Dept. of Economics, Copenhagen University.
Jan. 2016 – June 2016	Visiting Professor, Dept. of Economics, Aarhus University (part time).
March 2014 –	External Fellow, Essex Centre for Financial Econometrics, Essex University.
April 2007 – Aug. 2021	International Fellow, Center for Research in Econometric Analysis of Time Series (CREATES), Aarhus University.
Nov. 2006 – June 2008	Faculty member in the Field of Statistics, Dept. of Statistical Science, Cornell University.
Summers 2006 – 2008	Visiting Professor, Dept. of Economics, Aarhus University.

EDUCATION

April 2003	PhD Economics, Dept. of Economics, Aarhus University. Supervisors: Niels Haldrup and Bent Jesper Christensen. Thesis: *Multivariate Fractional Integration and Cointegration*. Evaluation committee: Svend Hylleberg, Jörg Breitung, and Søren Johansen.
Jan. 2002 – June 2002	Visiting PhD student, Dept. of Economics, Yale University. Local supervisor/host: Peter C. B. Phillips.
July 2001	MSc Economics (cand.oecon.), Dept. of Economics, Aarhus University. Thesis: *Efficient Likelihood Inference in Nonstationary Univariate Models* (published in *Econometric Theory*, 2004).
July 1999	MSc Econometrics & Mathematical Economics, London School of Economics. *Awarded with distinction*.
July 1998	BSc Economics, Dept. of Economics, Aarhus University. Received *The McKinsey Award 1998*, "for the top Bachelor's Degree at the School of Economics and Management, Aarhus University."

AWARDS AND HONORS

July 2020	Distinguished Author, *Journal of Time Series Analysis*.
June 2018	*Dan Usher Prize for Excellence in Economics Research 2018* (formerly *QED Research Prize*).
Oct. 2015	Fellow, *Journal of Econometrics*.
Nov. 2014	Inaugural member, *The Royal Society of Canada College of New Scholars, Artists and Scientists*.
May 2014	*Innis Lecturer*, Canadian Economics Association Annual Conference.
March 2013	*Queen's Economics Department Research Prize 2013*.
Feb. 2013	*Econometric Theory Multa Scripsit Award*, "in recognition of research contributions to the science of econometrics."
March 2010	*Queen's Economics Department Research Prize 2010*.
Jan. 2006	*The Danish Independent Research Councils' Young Researcher's Award 2006*, "for very talented young researchers under 35 years old."
Aug. 2005	Honorable mention, *The 2005 Zellner Thesis Award in Business and Economic Statistics*, American Statistical Association.
June 2004	*The Aarhus University Research Foundation PhD Prize 2004*, "for promising young researchers who recently finished their PhD with especially outstanding results."
Marquis Who's Who	Listed in *Marquis Who's Who in America* since 2007, listed in *Marquis Who's Who in the World* since 2008, recipient of the *Albert Nelson Marquis Lifetime Achievement Award* 2017.

RESEARCH GRANTS

July 2017 – June 2022	Canada Research Chair in Time Series Econometrics (tier 2) renewal. Funding for CAD 500,000 (approx. USD 375,000).
April 2017 – March 2022	Social Sciences and Humanities Research Council of Canada (SSHRC) insight grant: *Improved econometric methods for heteroskedastic time series*. Funding for CAD 123,805 (approx. USD 96,500).
July 2012 – June 2017	Canada Research Chair in Time Series Econometrics (tier 2). Funding for CAD 500,000 (approx. USD 485,000).
April 2012 – March 2017	SSHRC insight grant: *Econometric analysis and application of the fractionally cointegrated VAR model*. Funding for CAD 126,992 (approx. USD 128,500).
April 2009 – March 2012	SSHRC standard research grant: *Fractional cointegration in a vector autoregressive model*. Funding for CAD 59,568 (approx. USD 51,000).

July 2008	Queen's University Research Initiation Grant.
Jan. 2006 – Dec. 2008	Danish Social Sciences Research Council (FSE) research grant: *Analysis of fractionally integrated and cointegrated time series with applications to the Nordic electricity market and volatility modeling.* Funding for DKK 560,324 (approx. USD 92,500).
May 2005	Econometric Society World Congress 2005 travel grant.
Jan. 2003 – Dec. 2003	Danish Social Sciences Research Council (SSF) post-doctoral grant: *Long memory, fractional integration, and cointegration: theory development and application.* Funding for DKK 587,285 (approx. USD 85,000).

PROFESSIONAL SERVICE

Editorial boards	Associate Editor, *Journal of Econometrics* (July 2020–); Guest Co-Editor (with J. Hualde), special issue of *Journal of Time Series Analysis*: "In honor of the 35th anniversary of the publication of Geweke and Porter-Hudak (1983)" (2019, vol. 40, issue 4); Co-Editor, *Journal of Time Series Analysis* (Jan. 2018–); Associate Editor, *Econometric Theory* (March 2017–); Guest Co-Editor (with P. Narayan), special issue of *Journal of Banking and Finance*: "Recent developments in financial econometrics and applications" (2015, vol. 61, suppl. 2); Associate Editor, *Journal of Time Series Analysis* (Jan. 2013–Dec. 2017); Associate Editor, *Econometrics Journal* (Jan. 2012–); Associate Editor, *Journal of Applied Econometrics* (Jan. 2011–Dec. 2019).
Conference organizer	Third CREATES Long Memory Symposium, Aarhus, Denmark (June 2013); Annual Canadian Econometric Study Group Conference, Kingston, Canada (Oct. 2012); Second CREATES Long Memory Symposium, Aarhus, Denmark (June 2011).
Program committees	2021 North American Summer Meeting of the Econometric Society, remote (June 2021); Fourth CREATES Long Memory Symposium, Aarhus, Denmark (October 2015); Annual CIREQ Econometrics Conference, Montreal, Canada (May 2013); Third CIREQ Time Series Conference, Montreal, Canada (May 2009); (EC)[2] Conference: Recent Advances in Econometric Time Series, Faro, Portugal (Dec. 2007).
Granting agencies	Member of the advisory committee for the Canada Foundation for Innovation (CFI) John R. Evans Leaders Fund (2019–2021). Member of the adjudication committee for Social Sciences and Humanities Research Council of Canada (SSHRC) insight grants in economics (2013–2014).
Proposal reviewer	Canada Foundation for Innovation (CFI); Canada Research Chairs (CRC); Natural Sciences and Engineering Research Council of Canada (NSERC); Social Sciences and Humanities Research Council of Canada (SSHRC); Czech Science Foundation (GACR); Economic & Social Research Council, UK (ESRC).

Journal/book referee   *Annals of Statistics, Applied Economics, Applied Economics Quarterly, Applied Financial Economics, Communications in Statistics – Simulation and Computation, Computational Statistics & Data Analysis, Econometric Reviews, Econometric Theory, Econometrica, Econometrics and Statistics, Econometrics Journal, Economic Modelling, Economics Bulletin, Economics Letters, E-conomics, Empirical Economics, Finance Research Letters, Frontiers in Finance and Economics, IEEE Transactions on Signal Processing, International Review of Economics and Finance, Journal of Applied Econometrics, Journal of Banking & Finance, Journal of Business & Economic Statistics, Journal of Econometrics, Journal of Empirical Finance, Journal of Financial Econometrics, Journal of Financial Markets, Journal of Forecasting, Journal of Futures Markets, Journal of Multivariate Analysis, Journal of Statistical Planning and Inference, Journal of the American Statistical Association, Journal of Time Series Analysis, Journal of Time Series Econometrics, Macroeconomic Dynamics, Manchester School, Mathematical Finance, Oxford Bulletin of Economics and Statistics,* Oxford University Press, *Quantitative Economics, Review of Economic Studies, Review of Economics and Statistics, Scandinavian Journal of Economics, Statistical Papers, Studies in Nonlinear Dynamics & Econometrics.*

REFEREED PUBLICATIONS IN JOURNALS

1. Iacone, F., M.Ø. Nielsen, & A.M.R. Taylor (2020) Semiparametric tests for the order of integration in the possible presence of level breaks. Forthcoming in *Journal of Business & Economic Statistics*.
2. Cavaliere, G., M.Ø. Nielsen, & A.M.R. Taylor (2020) Adaptive inference in heteroscedastic fractional time series models. Forthcoming in *Journal of Business & Economic Statistics*.
3. Nielsen, M.Ø. & A.L. Noël (2021) To infinity and beyond: Efficient computation of ARCH(∞) models. *Journal of Time Series Analysis* 42, 338–354.
4. MacKinnon, J.G., M.Ø. Nielsen, & M.D. Webb (2021) Wild bootstrap and asymptotic inference with multiway clustering. *Journal of Business & Economic Statistics* 39, 505–519.
5. Hualde, J. & M.Ø. Nielsen (2020) Truncated sum of squares estimation of fractional time series models with deterministic trends. *Econometric Theory* 36, 751–772.
6. Djogbenou, A.A., J.G. MacKinnon, & M.Ø. Nielsen (2019) Asymptotic theory and wild bootstrap inference with clustered errors. *Journal of Econometrics* 212, 393–412.
7. Johansen, S. & M.Ø. Nielsen (2019) Nonstationary cointegration in the fractionally cointegrated VAR model. *Journal of Time Series Analysis* 40, 519–543.
8. Roodman, D., J.G. MacKinnon, M.Ø. Nielsen, & M.D. Webb (2019) Fast and wild: Bootstrap inference in Stata using boottest. *Stata Journal* 19, 4–60.
9. Johansen, S. & M.Ø. Nielsen (2018) Testing the CVAR in the fractional CVAR model. *Journal of Time Series Analysis* 39, 836–849.
10. Johansen, S. & M.Ø. Nielsen (2018) The cointegrated vector autoregressive model with general deterministic terms. *Journal of Econometrics* 202, 214–229.
11. Dolatabadi, S., P.K. Narayan, M.Ø. Nielsen, & K. Xu (2018) Economic significance of commodity return forecasts from the fractionally cointegrated VAR model. *Journal of Futures Markets* 38, 219–242.
12. Nielsen, M.Ø. & S. Shibaev (2018) Forecasting daily political opinion polls using the fractionally cointegrated vector auto-regressive model. *Journal of the Royal Statistical Society Series A* 181, 3–33.

13. Cavaliere, G., M.Ø. Nielsen, & A.M.R. Taylor (2017) Quasi-maximum likelihood estimation and bootstrap inference in fractional time series models with heteroskedasticity of unknown form. *Journal of Econometrics* 198, 165–188.

14. Johansen, S. & M.Ø. Nielsen (2016) The role of initial values in conditional sum-of-squares estimation of nonstationary fractional time series models. *Econometric Theory* 32, 1095–1139.

15. Dolatabadi, S., M.Ø. Nielsen, & K. Xu (2016) A fractionally cointegrated VAR model with deterministic trends and application to commodity futures markets. *Journal of Empirical Finance* 38B, 623–639.

16. Christensen, B.J., M.Ø. Nielsen, & J. Zhu (2015) The impact of financial crises on the risk-return tradeoff and the leverage effect. *Economic Modelling* 49, 407–418.

17. Cavaliere, G., M.Ø. Nielsen, & A.M.R. Taylor (2015) Bootstrap score tests for fractional integration in heteroskedastic ARFIMA models, with an application to price dynamics in commodity spot and futures markets. *Journal of Econometrics* 187, 557–579.

18. Dolatabadi, S., M.Ø. Nielsen, & K. Xu (2015) A fractionally cointegrated VAR analysis of price discovery in commodity futures markets. *Journal of Futures Markets* 35, 339–356.

19. Nielsen, M.Ø. (2015) Asymptotics for the conditional-sum-of-squares estimator in multivariate fractional time-series models. *Journal of Time Series Analysis* 36, 154–188.

20. Boswijk, H.P., M. Jansson, & M.Ø. Nielsen (2015) Improved likelihood ratio tests for cointegration rank in the VAR model. *Journal of Econometrics* 184, 97–110.

21. Jones, M.E.C., M.Ø. Nielsen, & M.K. Popiel (2014) A fractionally cointegrated VAR analysis of economic voting and political support. *Canadian Journal of Economics* 47, 1078–1130.

22. Jensen, A.N. & M.Ø. Nielsen (2014) A fast fractional difference algorithm. *Journal of Time Series Analysis* 35, 428–436.

23. MacKinnon, J.G. & M.Ø. Nielsen (2014) Numerical distribution functions of fractional unit root and cointegration tests. *Journal of Applied Econometrics* 29, 161–171.

24. Johansen, S. & M.Ø. Nielsen (2012) Likelihood inference for a fractionally cointegrated vector autoregressive model. *Econometrica* 80, 2667–2732.

25. Jansson, M. & M.Ø. Nielsen (2012) Nearly efficient likelihood ratio tests of the unit root hypothesis. *Econometrica* 80, 2321–2332.

26. Johansen, S. & M.Ø. Nielsen (2012) A necessary moment condition for the fractional functional central limit theorem. *Econometric Theory* 28, 671–679.

27. Frederiksen, P., F.S. Nielsen, & M.Ø. Nielsen (2012) Local polynomial Whittle estimation of perturbed fractional processes. *Journal of Econometrics* 167, 426–447.

28. Nielsen, M.Ø. & P. Frederiksen (2011) Fully modified narrow-band least squares estimation of weak fractional cointegration. *Econometrics Journal* 14, 77–120.

29. Jansson, M. & M.Ø. Nielsen (2011) Nearly efficient likelihood ratio tests for seasonal unit roots. *Journal of Time Series Econometrics* 3, issue 1, article 5.

30. Busch, T., B.J. Christensen, & M.Ø. Nielsen (2011) The role of implied volatility in forecasting future realized volatility and jumps in foreign exchange, stock, and bond markets. *Journal of Econometrics* 160, 48–57.

31. Haldrup, N., F.S. Nielsen, & M.Ø. Nielsen (2010) A vector autoregressive model for electricity prices subject to long memory and regime switching. *Energy Economics* 32, 1044–1058.

32. Johansen, S. & M.Ø. Nielsen (2010) Likelihood inference for a nonstationary fractional autoregressive model. *Journal of Econometrics* 158, 51–66.

33. Christensen, B.J., M.Ø. Nielsen, & J. Zhu (2010) Long memory in stock market volatility and the volatility-in-mean effect: the FIEGARCH-M model. *Journal of Empirical Finance* 17, 460–470.

34. Nielsen, M.Ø. (2010) Nonparametric cointegration analysis of fractional systems with unknown integration orders. *Journal of Econometrics* 155, 170–187.

35. Andersen, T.G., T. Bollerslev, P. Frederiksen, & M.Ø. Nielsen (2010) Continuous-time models, realized volatilities, and testable distributional implications for daily stock returns. *Journal of Applied Econometrics* 25, 233–261.

36. Nielsen, M.Ø. (2009) A powerful test of the autoregressive unit root hypothesis based on a tuning parameter free statistic. *Econometric Theory* 25, 1515–1544.

37. Frederiksen, P. & M.Ø. Nielsen (2008) Bias-reduced estimation of long-memory stochastic volatility. *Journal of Financial Econometrics* 6, 496–512.

38. Nielsen, M.Ø. & P.H. Frederiksen (2008) Finite sample accuracy and choice of sampling frequency in integrated volatility estimation. *Journal of Empirical Finance* 15, 265–286.

39. Zussman, A., N. Zussman, & M.Ø. Nielsen (2008) Asset market perspectives on the Israeli-Palestinian conflict. *Economica* 75, 84–115.

40. Nielsen, M.Ø. & K. Shimotsu (2007) Determining the cointegrating rank in nonstationary fractional systems by the exact local Whittle approach. *Journal of Econometrics* 141, 574–596.

41. Christensen, B.J. & M.Ø. Nielsen (2007) The effect of long memory in volatility on stock market fluctuations. *Review of Economics and Statistics* 89, 684–700.

42. Nielsen, M.Ø. (2007) Local Whittle analysis of stationary fractional cointegration and the implied-realized volatility relation. *Journal of Business & Economic Statistics* 25, 427–446.

43. Haldrup, N. & M.Ø. Nielsen (2007) Estimation of fractional integration in the presence of data noise. *Computational Statistics & Data Analysis* 51, 3100–3114.

44. Haldrup, N. & M.Ø. Nielsen (2006) Directional congestion and regime switching in a long memory model for electricity prices. *Studies in Nonlinear Dynamics & Econometrics* 10, issue 3, article 1.

45. Haldrup, N. & M.Ø. Nielsen (2006) A regime switching long memory model for electricity prices. *Journal of Econometrics* 135, 349–376.

46. Christensen, B.J. & M.Ø. Nielsen (2006) Asymptotic normality of narrow-band least squares in the stationary fractional cointegration model and volatility forecasting. *Journal of Econometrics* 133, 343–371.

47. Nielsen, M.Ø. & P.H. Frederiksen (2005) Finite sample comparison of parametric, semiparametric, and wavelet estimators of fractional integration. *Econometric Reviews* 24, 405–443.

48. Nielsen, M.Ø. (2005) Multivariate Lagrange multiplier tests for fractional integration. *Journal of Financial Econometrics* 3, 372–398.

49. Nielsen, M.Ø. (2005) Semiparametric estimation in time-series regression with long-range dependence. *Journal of Time Series Analysis* 26, 279–304.

50. Nielsen, M.Ø. (2005) Noncontemporaneous cointegration and the importance of timing. *Economics Letters* 86, 113–119.

51. Nielsen, M.Ø. (2004) Optimal residual-based tests for fractional cointegration and exchange rate dynamics. *Journal of Business & Economic Statistics* 22, 331–345.

52. Brendstrup, B., S. Hylleberg, M.Ø. Nielsen, L. Skipper, & L. Stentoft (2004) Seasonality in economic models. *Macroeconomic Dynamics* 8, 362–394.

53. Nielsen, M.Ø. (2004) Efficient inference in multivariate fractionally integrated time series models. *Econometrics Journal* 7, 63–97.

54. Nielsen, M.Ø. (2004) Spectral analysis of fractionally cointegrated systems. *Economics Letters* 83, 225–231.

55. Nielsen, M.Ø. (2004) Local empirical spectral measure of multivariate processes with long range dependence. *Stochastic Processes and their Applications* 109, 145–166.

56. Nielsen, M.Ø. (2004) Efficient likelihood inference in nonstationary univariate models. *Econometric Theory* 20, 116–146.

EDITORIALS, COMMENTS, ETC.

57. Nielsen, M.Ø. & J. Hualde (2019) Special issue of the Journal of Time Series Analysis in honour of the 35th anniversary of the publication of Geweke and Porter-Hudak (1983): Guest editors' introduction. *Journal of Time Series Analysis* 40, 386–387.
58. Narayan, P.K. & M.Ø. Nielsen (2015) Guest editors' introduction: Special issue of Journal of Banking and Finance on recent developments in financial econometrics and applications. *Journal of Banking and Finance* 61, S99–S100.
59. Andersen, T.G., T. Bollerslev, P.H. Frederiksen, & M.Ø. Nielsen (2006) Comment on P. R. Hansen and A. Lunde: "Realized Variance and Market Microstructure Noise." *Journal of Business & Economic Statistics* 24, 173–179.

CURRENT WORKING PAPERS
(*: DOWNLOADABLE FROM MY WEBSITE)

60. *Truncated sum-of-squares estimation of fractional time series models with generalized power law trend (with J. Hualde). QED working paper 1458.
61. *Cluster-robust inference: A guide to empirical practice (with J.G. MacKinnon and M.D. Webb). QED working paper 1456.
62. *Nearly efficient likelihood ratio tests of a unit root in an autoregressive model of arbitrary order (with S. Brien and M. Jansson). QED working paper 1429.
63. *Testing for the appropriate level of clustering in linear regression models (with J.G. MacKinnon and M.D. Webb). QED working paper 1428.
64. *Inference on the dimension of the nonstationary subspace in functional time series (with W.-K. Seo and D. Seong). QED working paper 1420.
65. *A Matlab program and user's guide for the fractionally cointegrated VAR model (with M.K. Popiel). QED working paper 1330.
66. *FCVAR: An R package for the fractionally cointegrated vector autoregressive model (with L. Morin and M.K. Popiel). Working paper, Aarhus University.
67. Statistical inference in the multifractional cointegrated VAR model (with S. Johansen). Work in progress.
68. The fractionally cointegrated VAR model with deterministic terms (with S. Johansen). Work in progress.

RETIRED WORKING PAPERS

69. FCVARmodel.m: A Matlab software package for estimation and testing in the fractionally cointegrated VAR model (with L. Morin). QED working paper 1273, Aug. 2011 – March 2014.
70. The information content of Treasury bond options concerning future volatility and price jumps (with T. Busch and B.J. Christensen). QED working paper 1188, February 2006.
71. Forecasting exchange rate volatility in the presence of jumps (with T. Busch and B.J. Christensen). QED working paper 1187, December 2005.
72. The implied-realized volatility relation with jumps in underlying asset prices (with B.J. Christensen). QED working paper 1186, November 2005.

SOFTWARE
(DOWNLOADABLE FROM MY WEBSITE)

R program for estimation and testing in the fractionally cointegrated VAR model.
        Latest version: 1.4.0a (May 1, 2018)
        References: Morin, Nielsen, and Popiel (2021, working paper)
                            Johansen and Nielsen (2012, *Econometrica*)

Stata .do files and data files for cluster-robust inference
        Latest version: April, 2021
        Reference: MacKinnon, Nielsen, and Webb (2021, QED working paper 1456).

Data and Gauss code to perform local Whittle tests in the presence of level breaks.
        Latest version: January, 2021
        Reference: Iacone, Nielsen, and Taylor (2021, forthcoming in *Journal of Business and Economic Statistics*, QED working paper 1431).

Stata .do file to perform tests for the level of clustering.
        Latest version: April, 2020
        Reference: MacKinnon, Nielsen, and Webb (2020, QED working paper 1428)

Computer programs for the ARCH(∞) FFT algorithm (Matlab, Ox, and R).
        Latest version: February 18, 2020
        Reference: Nielsen and Noël (2021, *Journal of Time Series Analysis*)

Data and R code to perform variance ratio test for the number of stochastic trends in functional time series.
        Latest version: September, 2019
        Reference: Nielsen, Seo, and Seong (2020, QED working paper 1420)

Stata .do file to perform bootstrap procedures for two-way clustered data.
        Latest version: September, 2019
        Reference: MacKinnon, Nielsen, and Webb (2021, *Journal of Business & Economic Statistics*)

Data files and Ox programs for adaptive CSS estimation.
        Latest version: August, 2019
        Reference: Cavaliere, Nielsen, and Taylor (2020, forthcoming in *Journal of Business & Economic Statistics*; QED working paper 1390)

Matlab program for estimation and testing in the fractionally cointegrated VAR model.
        Latest version: 1.4.0a (May 1, 2018)
        This program replaces an earlier program by Nielsen and Morin (2014, QED working paper 1273)
        References: Nielsen and Popiel (2018, QED working paper 1330)
                            Johansen and Nielsen (2012, *Econometrica*)

Computer programs (Matlab) and data for replication of forecasting results in Nielsen and Shibaev (2018).
        Latest version: August, 2016
        Reference: Nielsen and Shibaev (2018, *Journal of the Royal Statistical Society Series A*)

Matlab program for nearly efficient likelihood ratio tests of the unit root hypothesis (written with Michal Popiel).
>   Latest version: April 3, 2015
>   Reference: Jansson and Nielsen (2012, *Econometrica*)

Computer program to calculate critical values and *P* values for fractional unit root and cointegration tests.
>   Latest version: May, 2012 (bug fixed April 28, 2014)
>   References: MacKinnon and Nielsen (2014, *Journal of Applied Econometrics*)
>   Johansen and Nielsen (2012, *Econometrica*)

Computer programs for the fast fractional difference algorithm (Matlab, Ox, and R).
>   Latest version: May 10, 2013
>   Reference: Jensen and Nielsen (2014, *Journal of Time Series Analysis*)

Ox programs to calculate NBLS, FMNBLS, and other narrow-band least squares estimators.
>   Latest version: July 13, 2012
>   References: Nielsen and Frederiksen (2011, *Econometrics Journal*)
>   Christensen and Nielsen (2006, *Journal of Econometrics*)

Ox program to calculate nonparametric fractional cointegration rank tests.
>   Latest version: July, 2009
>   Reference: Nielsen (2010, *Journal of Econometrics*)

Matlab program to implement exact local Whittle cointegration rank determination procedure.
>   Latest version: February, 2007 (typo corrected June, 2013)
>   Reference: Nielsen and Shimotsu (2007, *Journal of Econometrics*)

CONFERENCE PRESENTATIONS

Keynote addresses and named lectures

Nov. 2019	International Keynote Speaker, 3rd Time Series and Forecasting Symposium, University of Sydney Business School, Australia.
Dec. 2014	Keynote address, Conference on Recent Developments in Financial Econometrics and Appl., Centre for Economics and Financial Econometrics Research, Deakin University, Australia.
May 2014	*Innis Lecture*, Canadian Economics Association Annual Conference, Vancouver, Canada.
May 2014	Keynote address, Conference on Performance of Financial Markets and Credit Derivatives, Centre for Economics and Financial Econometrics Research, Deakin University, Australia.

Invited presentations

2020 –	Advances in Econometrics Conference in Honor of Joon Y. Park, Bloomington, IN (scheduled Sept. 2022); Workshop on long-memory time series, Germany, remote (Jan. 2021); CFE: 14th International Conference on Computational and Financial Econometrics, remote (Dec. 2020).
2015 – 2019	CFE: 13th International Conference on Computational and Financial Econometrics, London, England (Dec. 2019); CIREQ Conference on Recent Advances in Bootstrap Methods, Montreal, Canada (May 2019); Long Memory Workshop, Hannover, Germany (Oct. 2018);

	10th York Econometrics Symposium, York, England (June 2017); VIECO: Vienna-Copenhagen Conference on Financial Econometrics, Vienna, Austria (March 2017); DAGStat, 4th convention of the German Consortium in Statistics, Göttingen, Germany (March 2016); Workshop on Long Memory and Nonstationary Time Series and Panels, Frankfurt, Germany (May 2015).
2010 – 2014	Workshop on Time Series Econometrics, Frankfurt, Germany (June 2014); Conference on Recent Developments in Financial Econometrics and Empirical Finance, Essex Centre for Financial Econometrics, Essex, England (June 2014); HEC Montréal-CIRPÉE Applied Financial Time Series Workshop, Montreal, Canada (Feb. 2014); 13th OxMetrics Users Conference, Aarhus, Denmark (Sept. 2013); Annual CIREQ Econometrics Conference, Montreal, Canada (May 2013); HEC Montréal-CIRPÉE Applied Financial Time Series Workshop, Montreal, Canada (Feb. 2013); CREATES Annual Conference, Sandbjerg, Denmark (Aug. 2012); Second CREATES Long Memory Symposium, Aarhus, Denmark (June 2011); Fifth CIREQ Time Series Conference, Montreal, Canada (May 2011); HEC Montréal-CIRPÉE Applied Financial Time Series Workshop, Montreal, Canada (Feb. 2010).
2005 – 2009	Third CIREQ Time Series Conference, Montreal, Canada (May 2009); CREATES Long Memory Symposium, Aarhus, Denmark (June 2007); Summer Econometrics Workshop, Aarhus, Denmark (Aug. 2006); International Conference on Multivariate Modeling in Finance and Risk Management, Centre for Analytical Finance, Sandbjerg Manor, Denmark (June 2006); Nordic Econometric Meeting, Helsinki, Finland (May 2005).
2000 – 2004	Aarhus Econometrics Meeting, Svinkløv, Denmark (May 2004); European Winter Meeting of the Econometric Society, Budapest, Hungary (Nov. 2002); International Conference on Market Microstructure and High-Frequency Data in Finance, Centre for Analytical Finance, Sandbjerg Manor, Denmark (Aug. 2001); Annual Meeting of the Centre for Analytical Finance, Sandbjerg Manor, Denmark (Jan. 2001).

Contributed presentations

2020 –	(EC)^2 Conference, Paris, France, remote (Dec. 2020); Econometric Society World Congress, Milan, Italy, remote (Aug. 2020); Annual ANZESG Conference, Melbourne, Australia (Feb. 2020).
2015 – 2019	Annual CESG Conference, Ottawa, Canada (Oct. 2018); Annual CESG Conference, Toronto, Canada (Oct. 2017); Fourth IAAE annual conference, Sapporo, Japan (June 2017); NY Camp Econometrics XII, Lake Placid, NY (April 2017); Annual CESG Conference, London, Canada (Oct. 2016); Econometric Society World Congress, Montreal, Canada (Aug. 2015).
2010 – 2014	Annual CESG Conference, Waterloo, Canada (Oct. 2013); Annual CESG Conference, Toronto, Canada (Oct. 2011); NBER-NSF Time Series Conference, East Lansing, MI (Sept. 2011); Econometric Society World Congress, Shanghai, China (Aug. 2010).
2005 – 2009	NBER-NSF Time Series Conference, Aarhus, Denmark (Sept. 2008); (EC)^2 Conference, Faro, Portugal (Dec. 2007); Annual CESG Conference, Montreal, Canada (Sept. 2007); Conference in Honour of Paul Newbold, Granger Centre for Time Series Econometrics, Nottingham,

England (Sept. 2007); North American Summer Meeting of the Econometric Society, Durham, NC (June 2007); European Meeting of the Econometric Society, Vienna, Austria (Aug. 2006); Econometrics in Rio, Rio de Janeiro, Brazil (July 2006); International Conference on Time Series Econometrics, Finance, and Risk, Perth, Australia (June 2006); North American Summer Meeting of the Econometric Society, Minneapolis, MN (June 2006); Econometric Society World Congress, London, England (Aug. 2005).

2000 – 2004	Nordic Econometric Meeting, Bergen, Norway (May 2003); (EC)^2 Conference, Bologna, Italy (Dec. 2002); Annual Meeting of the Danish Graduate Programme in Economics, Korsør, Denmark (Nov. 2002); European Meeting of the Econometric Society, Venice, Italy (Aug. 2002); Annual Meeting of the Danish Graduate Programme in Economics, Rungstedgaard, Denmark (Nov. 2001); Annual Meeting of the Danish Econometric Society, Sandbjerg Manor, Denmark (May 2000).

Discussant

2020 –	Annual ANZESG Conference, Melbourne, Australia (Feb. 2020).
2015 – 2019	Annual CESG Conference, Ottawa, Canada (Oct. 2018).
2010 – 2014	Fifth CIREQ Time Series Conference, Montreal, Canada (May 2011).
2000 – 2009	Annual Meeting of the Danish Graduate Programme in Economics, Korsør, Denmark (Nov. 2002).

INVITED SEMINARS

2020 –	Singapore Management University/National University of Singapore, remote (Oct. 2021); University of Exeter, England, remote (May 2021); Boston University, remote (March 2021); Copenhagen Business School, Denmark, remote (Nov. 2020); Michigan State University, remote (Oct. 2020); Higher School of Economics, Russia, remote (Sept. 2020); University of Queensland, Australia (canceled, March 2020); Monash University, Australia (canceled, March 2020).
2015 – 2019	Australian National University Statistics, Australia (Nov. 2019); Queensland University of Technology, Australia (Nov. 2019); University of Sydney, Australia (Sept. 2019); University of New South Wales, Australia (Sept. 2019); University of Melbourne, Australia (Aug. 2019); McGill University, Canada (Nov. 2018); Australian National University, Australia (Oct. 2018); Binghamton University (Sept. 2018); University of Wisconsin–Madison (April 2018); UCSD (April 2017); Binghamton University (Nov. 2016); University of Southern Denmark, Denmark (June 2016); Nuffield College at University of Oxford, England (June 2016); CREATES/Aarhus University, Denmark (May 2016); Lund University, Sweden (April 2016); University of Copenhagen, Denmark (March 2016).
2010 – 2014	Université de Montréal, Canada (Nov. 2014); Indiana University–Bloomington (Feb. 2013); Michigan State University (Feb. 2013); Rice University (Oct. 2012); Penn. State University

(Oct. 2012); CREATES/Aarhus University, Denmark (May 2012); Cornell University (March 2011); Boston University (April 2010); CREATES/Aarhus University, Denmark (Feb. 2010).

2005 – 2009	Cornell University (April 2009); HEC Montréal, Canada (April 2008); Queen's University, Canada (Jan. 2008); Purdue University (Dec. 2007); UC Riverside (Dec. 2007); Cornell University (Nov. 2007); Rutgers University (Oct. 2007); Texas A&M University (Sept. 2007); UCLA (May 2007); Queen's University, Canada (May 2007); Michigan State University (March 2007); Cornell University Department of Statistical Science (March 2007); University of Wisconsin–Madison (May 2006); Binghamton University (Dec. 2005); Cornell University (Sept. 2005); Queen's University, Canada (April 2005); Purdue University (March 2005).
2000 – 2004	Université de Montréal, Canada (Sept. 2004); Cornell University (Sept. 2004); Aarhus University, Denmark (Jan. 2004); Nuffield College at University of Oxford, England (Feb. 2003); Michigan State University (Feb. 2003); Cornell University (Feb. 2003); University of British Columbia, Canada (Jan. 2003); Tilburg University, The Netherlands (Jan. 2003); Aarhus University, Denmark (Jan. 2003); Yale University (April 2002); Yale University (Feb. 2002); Aarhus University, Denmark (Nov. 2001); Aarhus University, Denmark (April 2000).

TEACHING EXPERIENCE

Short PhD courses	"Fractional time series models" at CREATES/Aarhus University (June 24-25, 2013).
Queen's University	Econ. 851: "Econometrics II" (winter 2013–2015, winter 2017–2019, winter 2021); Econ. 95x: "Advanced Topics in Econometrics" (fall 2010, fall 2013, winter 2015, fall 2017, fall 2018, winter 2021); Econ. 852: "Quantitative Methods" (fall 2008–2011, fall 2013, fall 2014); Econ. 853/953: "Applied Econometrics (Time Series Analysis)" (winter 2009).
Cornell University	Econ. 320: "Introduction to Econometrics" (fall 2006, fall 2007, spring 2008); Econ. 721: "Time Series Econometrics" (fall 2006, fall 2007); Econ. 327: "Time Series Econometrics" (spring 2004, spring 2005, spring 2006); Econ. 722: "Topics in Time Series Econometrics" (spring 2004, spring 2005, spring 2006); Econ. 333: "Financial Economics" (fall 2003, fall 2004, fall 2005).
Aarhus University	Guest lecturer in graduate time series analysis (fall 2001, spring 2003); Teaching assistant for "Statistics 3: Regression Analysis" (spring 2000); Supervisor for "Empirical 2nd year Project" (spring 2000); Teaching assistant for "Statistics B: Statistics for Business" (fall 2000).
LSE	Teaching assistant for "Statistics for Economists" at Dept. of Statistics (spring 1999).
Aarhus University	Teaching assistant for "Statistics 3: Regression Analysis" (spring 1998); Teaching assistant for "Statistics 2: Statistical Inference" (fall 1997).

PHD STUDENT AND POSTDOC SUPERVISION
(#: MAIN SUPERVISOR OR CO-SUPERVISOR; YEAR OF DEGREE & FIRST POSITION IN PARENTHESIS)

Queen's University	#N'Golo Kone (postdoc 2020–2022);
	#Won-Ki Seo (postdoc 2018–2020, University of Sydney);
	Dakyung Seong (UC Davis PhD 2020, University of Sydney);
	#Saad Khan (PhD 2020, HEC Montreal);
	Sepideh Dolatabadi (PhD 2018, Capital Economics, Canada);
	Maggie E.C. Jones (PhD 2018, University of Victoria, Canada):
	#Antoine A. Djogbenou (postdoc 2016–2018, York University, Canada);
	Ke Xu (PhD 2017, University of Victoria, Canada);
	#Sergei S. Shibaev (PhD 2017, CitiBank):
	#Michal K. Popiel (PhD 2017, Analysis Group);
	#Lealand Morin (PhD 2016, Capital One, then University of Central Florida);
	#Rui Gao (PhD 2014, Southwestern University of Finance and Economics, China);
	#Tian Xie (PhD 2013, Wuhan University, China);
	#Nina Kuriyama aka Yini Wang (PhD 2012, Renmin University, China).
Cornell University	Jae-Ho Yun (PhD 2009, Bank of Korea);
	#Kin-Yip Ho (PhD 2008, Swinburne U. of Technology postdoc, then Australian National U.).

ADMINISTRATIVE EXPERIENCE

Queen's University	Quantitative workshop organizer, 2008–2015, 2017–2019, 2020–2021;
	Visitors committee, 2018–2019 (chair), 2020–2021 (chair);
	Econometrics brown-bag seminar co-organizer, 2018–2019, 2020–2021;
	Appointments committee, 2010–2015, 2017–2018 (chair of modified committee);
	Postdoc (econometrics) recruitment committee, 2016, 2018, 2020;
	Department of Economics headship review and search committee, 2012–2013, 2018–2019;
	Scarthingmoor Prize committee, 2010 (chair).
Cornell University	Graduate admissions committee, 2003–2008;
	Econometrics recruitment committee, 2006–2007.