

## CURRICULUM VITAE

### Dr Efstathios Paparoditis

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### EDUCATION

Ph.D.	<b>Freie Universität Berlin</b>	Mathematical Statistics	1990
Diploma	<b>Freie Universität Berlin</b>	Mathematical Economics	1985

### ACADEMIC POSITIOS

Since 5/22	<b>Elected Member</b> , Cyprus Academy of Sciences, Letters and Arts.
8/04 - 8/24	<b>Professor</b> , Department of Mathematics and Statistics, University of Cyprus.
9/97 - 7/04	<b>Associate Professor</b> , Department of Mathematics and Statistics, University of Cyprus.
9/93 - 8/97	<b>Assistant Professor</b> , Department of Mathematics and Statistics, University of Cyprus.
3/91 - 8/93	<b>Assistant Professor (Wissenschaftlicher Assistent, C1)</b> , Institute of Quantitative Methods, Technische Universität Berlin.
9/85 - 9/90	<b>Research and Teaching Assistant (Wissenschaftlicher Mitarbeiter)</b> , Institute of Statistics and Actuarial Mathematics, Freie Universität Berlin.

### CYPRUS ACADEMY SERVICE

**Secretary General** of the Cyprus Academy of Sciences, Letters and Arts, October 2024-.

### UNIVERSITY of CYPRUS SERVICE

**Dean of the School** of Pure and Applied Sciences, University of Cyprus, May 2011 to April 2014.

**Chairperson** of the Department of Mathematics and Statistics, University of Cyprus, 2002 to 2004

**Vice Chairperson** of the Department of Mathematics and Statistics, University of Cyprus, 1998 to 2002

**Member of the Senate** of the University of Cyprus, 2017-2019 and 2004-2008.

Member of the **Research Committee** of the University of Cyprus, 1997 to 2001

Member of the University of Cyprus **Committee for Undergraduate Studies**, 2017-2019.

**Director** of the Cultural Center of the University of Cyprus, 2019-2024.

## FELLOWSHIPS AND AWARDS

1990. Highest distinction ('summa cum laude') for the Ph.D. Thesis.

1993. Habilitation Fellowship, German Research Association, for a one year research visit at the University of California, San Diego, USA.

2015. DAAD Visiting Professorship, Germany.

2016. Research in Pairs visit. Mathematisches Forschungsinstitut Oberwolfach, Germany.

2022. Elected Fellow of the Institute of Mathematical Statistics.

2022. Elected Member of the Cyprus Academy of Sciences, Letters and Arts.

## RESEARCH INTERESTS

Time Series and Spectral Analysis, Resampling Methods for Dependent Data, Nonparametric Function Estimation, Goodness-of-Fit Testing, High Order Correlations for Stochastic Processes, Model Identification in Time Series Analysis.

## BOOKS

1. J.-P. Kreiss and E. Paparoditis, 'Bootstrap for Time Series: Theory and Application', *Springer-Verlag, New York*, 2025, to appear.

## JOURNAL PAPERS

72. Paparoditis, E., Wegner, L. and M. Wendler (2025) 'Functional Sieve Bootstrap for the Partial Sum Process with Application to Change Point Detection', *Submitted*.

71. J. Krampe and E. Paparoditis (2025) 'Frequency Domain Statistical Inference for High-Dimensional Time Series', *Journal of the American Statistical Association*, to appear.

70. Kreiss, J.-P., Leucht A. and E. Paparoditis (2025) 'Gaussian Approximation for Lag-Window Estimators

and the Construction of Confidence Bands for the Spectral Density’, *Journal of Time Series Analysis, Special Issue in Honor of Hira Koul*, to appear.

69. Lofti, S., Pagliardi, G., Paparoditis, E. and S. Zenios (2024) ‘Hedging Political Risk in International Portfolios’, *European Journal of Operational Research*, 322, 629-646.

68. Zhang, Y., E. Paparoditis and D. N. Politis (2024) ‘Simultaneous Statistical Inference for Second Order Parameters of Time Series Under Weak Conditions’, *Annals of Statistics*, 52, 2375-2399..

67. Rademacher, D., Kreiss, J.-P. and E. Paparoditis (2024) ‘Asymptotic Normality of Spectral Means of Hilbert Space Valued Random Processes’, *Stochastic Processes and their Applications*, 173, 104375.

66. E. Paparoditis and H. L. Shang (2023) ‘Bootstrap Prediction Bands for Functional Time Series’, *Journal of the American Statistical Association*, 118, 972-986. Correction: JASA, 2023, 118, p. 2212.

65. M. Meyer and E. Paparoditis (2023) ‘A Frequency Domain Bootstrap for General Multivariate Stationary Processes’, *Bernoulli*, 29, 2367-2391.

64. J.-P. Kreiss and E. Paparoditis (2023) ‘Bootstrapping Whittle Estimators’, *Biometrika*, 110, 499-518.

63. J. Krampe, E. Paparoditis and C. Trenkler (2023) ‘Structural Inference in Sparse High-Dimensional Vector Autoregressions’, *Journal of Econometrics*, 234, 276-300.

62. A. Leucht, E. Paparoditis, D. Rademacher and T. Sapatinas (2022) ‘Bootstrap Based Testing of Equality of Spectral Density Operators for Functional Processes’, *Journal of Multivariate Analysis*, 189, Paper No 104889.

61. J. Krampe and E. Paparoditis (2021) ‘Sparsity Concepts and Estimation Procedures for High Dimensional Vector Autoregressive Models’, *Journal of Time Series Analysis, Special Issue in Honor of Murray Rosenblatt*, 42, 554-579.

60. J. Krampe, J.-P. Kreiss and E. Paparoditis (2021) ‘Bootstrap Based Inference for Sparse High-Dimensional Time Series Models’, *Bernoulli*, 21, 1441-1466.

59. M. Meyer, E. Paparoditis and J. P. Kreiss (2020) ‘Extending the Validity of Frequency Domain Bootstrap Methods to General Stationary Processes’, *Annals of Statistics*, 48, 2404-2427.

58. D. Pilavakis, E. Paparoditis and T. Sapatinas (2020) ‘Testing Equality of Autocovariance Operators for Functional Time Series’, *Journal of Time Series Analysis*, 41, 571-589.

57. D. Pilavakis, E. Paparoditis and T. Sapatinas (2019) ‘Moving Block and Tapered Block Bootstrap for Functional Time Series with an Application to the K-Sample Mean Problem’, *Bernoulli*, 25, 3496-3526.

56. E. Paparoditis (2018) ‘Sieve Bootstrap for Functional Time Series’, *Annals of Statistics*, 46, 3510-3538.

55. J. Krampe, J. P. Kreiss and E. Paparoditis (2018) ‘Estimated Wold Representation and Spectral Density Driven Bootstrap for Time Series’, *Journal of the Royal Statistical Society, Series B*, 80, 703-726.

54. M. Fragkeskou and E. Paparoditis (2018) ‘Extending the Range of Validity of the Autoregressive (Sieve) Bootstrap’, *Journal of Time Series Analysis, Special Issue in Honor of Emanuel Parzen*, 39, 356-379.

53. E. Paparoditis and D. N. Politis (2018) ‘The Asymptotic Size and Power of the Augmented Dickey-Fuller Test for a Unit Root’, *Econometric Reviews*, 37, 955-973.
52. T. Niebuhr, J. P. Kreiss and E. Paparoditis (2017) ‘Some Properties of the Autoregressive-Aided Block Bootstrap’, *Electronic Journal of Statistics*, 11, 725-751.
51. E. Paparoditis and T. Sapatinas ‘Bootstrap Based Testing for Functional Data’, 2016, *Biometrika*, 103, 727-733.
50. E. Paparoditis and P. Preuss, ‘Local Power Properties of Frequency Domain Based Tests for Stationarity’, 2016, *Scandinavian Journal of Statistics*, 43, 664-682.
49. M. Fragkeskou and E. Paparoditis ‘Inference for the Fourth Order Innovation Cumulant in Linear Time Series’, 2016, *Journal of Time Series Analysis*, 37, 240-266.
48. E. Paparoditis and D. N. Politis, ‘On the Behavior of Nonparametric Density and Spectral Density Estimators at Zero Points of their Support’, 2016, *Journal of Time Series Analysis*, 37, 182-194.
47. A. Dudek, E. Paparoditis and D. N. Politis ‘Generalized Seasonal Tapered Block Bootstrap’, 2016, *Statistics and Probability Letters* 115, 27-35.
46. C. Jentsch, E. Paparoditis and D. N. Politis, ‘Block Bootstrap Theory for Multivariate Integrated and Co-Integrated Processes’, 2015, *Journal of Time Series Analysis*, 36, 416-441.
45. C. Parker, E. Paparoditis and D. N. Politis, ‘Tapered Block Bootstrap for Unit Root Testing’, 2015, *Journal of Time Series Econometrics*, 7, 37-67.
44. J. Krampe, J. P. Kreiss and E. Paparoditis ‘Hybrid Wild Bootstrap for Nonparametric Trend Estimation in Locally Stationary Time Series’, 2015, *Statistics and Probability Letters*, vol. 101, 54-63.
43. J.-P. Kreiss and E. Paparoditis, ‘Bootstrapping Locally Stationary Processes’, 2015, *Journal of the Royal Statistical Society, Series B*, vol. 77, 267-290.
42. E. Paparoditis and P. Preuss ‘Estimation of the Bispectrum of a Locally Stationary Process’, 2014, *Statistics and Probability Letters*, vol. 89, 8-16.
41. E. Paparoditis and T. Sapatinas (2013) ‘Short Term Load Forecasting: The Similar Shape Functional Time Series Predictor’, *IEEE Transactions on Power Systems*, Vol. 28, Issue 4, 3818-3825.
40. A. Dudek, J. Leskow, E. Paparoditis and D. N. Politis, (2012) ‘A generalized block bootstrap for seasonal time series’, *Journal of Time Series Analysis*, vol. 35, 89-114.
39. A. Dowla, E. Paparoditis and D. N. Politis, ‘Local block bootstrap inference for trending time series’, 2012, *Metrika*, 1-32.
38. J.-P. Kreiss and E. Paparoditis, ‘The Hybrid Wild Bootstrap for Time Series’, 2012, *Journal of the American Statistical Association*, vol. 107, 1073-1084.
37. E. Paparoditis and D. N. Politis, ‘Nonlinear Spectral Density Estimation: thresholding the correlogram’, 2012, *Journal of Time Series Analysis*, vol. 33, 386-397.

36. J.-P. Kreiss and E. Paparoditis, ‘Bootstrap for Dependent Data: A Review’, (with Discussion, and a rejoinder), 2011, *Journal of the Korean Statistical Society*, vol. 40, 357-378 and 393-395.
35. J.-P. Kreiss, E. Paparoditis and D. N. Politis, ‘On the Range of Validity of the Autoregressive Sieve Bootstrap’, 2010, *Annals of Statistics*, vol. 39, 2103-2130.
34. A. Berg, E. Paparoditis and D. N. Politis, ‘A Bootstrap Test for Time Series Linearity’, 2010, *Journal of Statistical Planning and Inference*, vol. 140, 3841-3857.
33. E. Paparoditis, ‘Validating stationarity assumptions in time series analysis by rolling local periodograms’, 2010, *Journal of the American Statistical Association*, vol. 105, 839-851.
32. E. Paparoditis, ‘Testing temporal constancy of the spectral structure of a time series’, 2009, *Bernoulli*, vol. 15, 1190-1221.
31. M. Sergides and E. Paparoditis, ‘Frequency domain tests of semiparametric hypotheses for locally stationary processes’, 2009, *Scandinavian Journal of Statistics*, vol. 36, 800-821.
30. H. Dette and E. Paparoditis, ‘Bootstrapping frequency domain tests in multivariate time series with an application to comparing spectral densities’, 2009, *Journal of the Royal Statistical Society, Series B*, vol 71, 831-857.
29. A. Antoniadis, E. Paparoditis and T. Sapatinas, ‘Bandwidth selection for functional time series prediction’, *Statistics and Probability Letters*, vol 79, 2009, 733-740.
28. M. H. Neumann and E. Paparoditis, ‘Simultaneous Confidence Bands in Spectral Density Estimation’, *Biometrika*, vol 95, 2008, 381-397.
27. M. Sergides and E. Paparoditis, ‘Bootstrapping the Local Periodogram of Locally Stationary Processes’, *Journal of Time Series Analysis*, vol 29, 2008, 264-299. Corrigendum: *Journal of Time Series Analysis*, vol 30, 260-261.
26. M. H. Neumann and E. Paparoditis, ‘Goodness-of-Fit Tests for Markovian Time Series Models’, *Bernoulli*, vol 14, 2008, 14-46.
25. A. Antoniadis, E. Paparoditis and T. Sapatinas, ‘A Functional Wavelet-Kernel Approach for Continuous-Time Prediction’, *Journal of the Royal Statistical Society, Series B*, vol. 68, 2006, 837-857.
24. C. Parker, E. Paparoditis and D. N. Politis, ‘Unit Root Testing via the Stationary Bootstrap’, *Journal of Econometrics*, vol. 133, 2006, pp. 601-638.
23. E. Paparoditis and D. N. Politis, ‘Bootstrap Hypothesis Testing in Regression Models’, *Statistics and Probability Letters*, vol. 74, 2005, pp. 356-365.
22. E. Paparoditis, ‘Testing the Fit of a Vector Autoregressive Moving Average Model’, *Journal of Time Series Analysis*, vol. 26, 2005, pp. 543-568.
21. E. Paparoditis and D. N. Politis, ‘Bootstrapping Unit Root Tests for Autoregressive Time Series’, *Journal of the American Statistical Association*, vol. 100, 2005, pp. 545-553.

20. J.-P. Kreiss and E. Paparoditis, ‘Autoregressive Aided Periodogram Bootstrap for Time Series’, *The Annals of Statistics*, vol. 31, 2003, pp. 1923-1955.
19. E. Paparoditis and D. N. Politis, ‘Residual-Based Block Bootstrap for Unit Root Testing’, *Econometrica*, vol. 71, 2003, pp. 813-855.
18. E. Paparoditis and D. N. Politis, ‘The Local Block Bootstrap’, *C. R. Acad. Sci. Paris, Series I*, vol. 335, 2003, pp. 959-962.
17. E. Paparoditis and D. N. Politis, ‘The Local Bootstrap for Markov Processes’, *Journal of Statistical Planning and Inference*, vol. 108, No 1-2, 2002, pp. 301-328.
16. E. Paparoditis and D. N. Politis, ‘The Tapered Block Bootstrap for General Statistics from Stationary Sequences’, *The Econometrics Journal*, vol. 5, 2002, pp. 131-148.
15. E. Paparoditis and D. N. Politis, ‘Tapered Block Bootstrap’, *Biometrika*, vol. 88, 2001, 1105-1119.
14. E. Paparoditis and D. N. Politis, ‘A Markovian Local Resampling Scheme for Nonparametric Estimators in Time Series Analysis’, *Econometric Theory*, vol. 17, 2001, pp. 540-566.
13. E. Paparoditis and D. N. Politis, ‘Large-Sample Inference in the General AR(1) Model’, *Test*, vol. 9, 2000, pp. 487-509.
12. M. H. Neumann and E. Paparoditis, ‘On Bootstrapping  $L_2$ -Type Statistics in Density Testing’, *Statistics and Probability Letters*, vol. 50, 2000, pp. 137-147.
11. E. Paparoditis, ‘Spectral Density Based Goodness-of-Fit Tests for Time Series Models’, *Scandinavian Journal of Statistics*, vol. 27, 2000, pp. 143-176.
10. E. Paparoditis and D. N. Politis, ‘The Local Bootstrap for Kernel Estimators under General Dependence Conditions’, *Annals of the Institute of Statistical Mathematics*, vol. 52, 2000, pp. 139-159.
9. E. Paparoditis and D. N. Politis, ‘The Local Bootstrap for Periodogram Statistics’, *Journal of Time Series Analysis*, vol. 20, 1999, pp. 193-222.
8. D.N. Politis, E. Paparoditis and J.P. Romano, ‘Large sample Inference for Irregularly Spaced Dependent Observations Based on Subsampling’, *Sankhyā, Series A*, vol. 60, 1998, pp. 274-292.
7. E. Paparoditis, ‘A Frequency Domain Bootstrap Based Method for Checking the Fit of a Transfer Function Model’, *Journal of the American Statistical Association*, vol. 91, 1996, pp. 1535-1551.
6. E. Paparoditis, ‘Bootstrapping Autoregressive and Moving Average Parameter Estimates of Infinite Order Vector Autoregressive Processes’, *Journal of Multivariate Analysis*, vol. 57, 1996, pp. 277-296.
5. E. Paparoditis, ‘Bootstrapping Periodogram and Cross Periodogram Statistics of Vector Autoregressive Moving Average Models’, *Statistics and Probability Letters*, Vol. 27, 1996, pp. 385-391. (*Erratum*, *Statistics and Probability Letters*, Vol. 31, 1997, p. 243 and *Addendum*, *Statistics and Probability Letters*, Vol. 37, 1998, p. 109).
4. E. Paparoditis, ‘On Vector Autocorrelations and Generalized Second Order Functions for Time Series’,

*Journal of Time Series Analysis*, vol. 15, 1994, pp. 325-334.

3. E. Paparoditis, 'A Comparison of Some Autocovariance Based Methods of Autoregressive Moving Average Model Selection', *Journal of Statistical Computation and Simulation*, vol. 45, 1993, pp. 97-120.

2. E. Paparoditis, 'Modelling Long Term Dependence in Measurement Errors of Plutonium Concentration', *Statistical Papers* vol. 33, 1992, pp. 159-170.

1. E. Paparoditis, B. Streitberg 'Order Identification Statistics in Stationary Autoregressive Moving Average Models: Vector Autocorrelations and the Bootstrap', *Journal of Time Series Analysis*, vol. 13, 1991, pp. 415-435.

## BOOK CONTRIBUTIONS

7. E. Paparoditis 'Nonparametric Functional Time Series Prediction', in *Recent Advances in Functional Data Analysis and Related Topics*, Edited by F. Ferraty, 2011, Physica-Verlag: Berlin, pp. 251-254.

6. E. Paparoditis and D. N. Politis, 'Resampling and Subsampling for Financial Time Series', in *Handbook of Financial Time Series*, Edited by T. G. Andersen, R. A. Davis, J.-P. Kreiss and T. Mikosch, 2009, Springer-Verlag: New York, pp. 983-999.

5. A. Dowla, E. Paparoditis and D. N. Politis, 'Locally Stationary Processes and the Local Bootstrap', in *Recent Advances and Trends in Nonparametric Statistics*, Edited by M. G. Akritas and D. N. Politis, 2003, Elsevier: Amsterdam, pp. 437-445.

4. E. Paparoditis, 'Frequency Domain Bootstrap for Time Series', in *Empirical Process Techniques for Dependent Data*, Edited by H. Dehling, T. Mikosch and M. Sørensen, Birkhäuser: Boston, 2002, pp. 365-381.

3. E. Paparoditis and D. N. Politis, 'The Continuous-Path Block-Bootstrap', in *Asymptotics in Statistics and Probability*, Edited by Madan L. Puri, 2001, VSP International Science Publishers, pp. 305-320.

2. E. Paparoditis, 'On Some Power Properties of Goodness-of-Fit Tests in Time Series Analysis', in *Recent Advances in Probability and Statistics* Edited by Ch. A. Charalambides, N. Balakrishnan and M. V. Koutras 2001, Chapman & Hall, pp. 333-348.

1. D. N. Politis, E. Paparoditis and J. P. Romano, 'Resampling Marked Point Processes', in *Multivariate Analysis, Design of Experiments and Survey Sampling*, Edited by S. Ghosh, 1999, Marcell Dekker, Inc., pp. 163-185.

## REFEREED CONFERENCE PROCEEDINGS

3. E. Paparoditis and H. L. Shang 'A Sieve Bootstrap Method that Incorporates Model Uncertainty for Constructing Prediction Intervals for Functional Time Series', in *ISNPS 2018 Conference Proceedings*, Lecture Notes, Springer-Verlag, 2019, To appear.

2. E. Paparoditis and D. N. Politis 'The Backward Local Bootstrap for Conditional predictive Inference in Nonlinear Time Series', in *4th Hellenic-European Conference on Computer Mathematics and its Applications*

(*HERCMA '98*), E. A. Lipitakis (Ed.), Lea Publishing, Athens, Greece, 1998, pp. 467-470.

1. E. Paparoditis, 'Bootstrapping Some Statistics Useful in Identifying ARMA Models', in *Bootstrapping and Related Techniques*, (K.-H. Jöckel, G. Rothe and W. Sendler, eds.), 1992, Lecture Notes in Economics and Mathematical Systems, No. 376, Springer-Verlag: Berlin, pp. 115-119.

## RESEARCH MONOGRAPHS

1. E. Paparoditis, 'Vector Autocorrelations of Stochastic Processes and the Identification of Autoregressive Moving Average Models', 1990, (in German). Physica-Verlag: Heidelberg.

## BOOK REVIEWS

1. 'Stochastic Models for Time Series' by P. Doukhan. *Journal of Time Series Analysis*, to appear.

2. 'Resampling Methods for Dependent Data' by S. N. Lahiri. *Sankhyā, Series A*, 2003, 836-838.

3. 'Wavelet Methods in Statistics with R' by G. P. Nason. *Journal of the Royal Statistical Society*, 2010, vol. 173, p. 273.

## INVITED SEMINAR PRESENTATIONS

CMStatistics, Berlin, Germany, 16-18 December 2023. 'The Generalized Periodogram Bootstrap'.

University of Dortmund, Dortmund, Germany, 13 December 2023. Gave the talk entitled '*Prediction Bands for Functional Time Series*'.

Workshop on Recent Advances in Nonparametric Statistics for Dependent Data, Bamberg, Germany, 29 June 2023, 'Prediction Bands for Functional Time Series'.

Workshop on Non-stationarity, Cyclostationarity and Applications, Nanterre, France, 5-7 June 2023, 'Prediction Bands for Functional Time Series'.

CMStatistics, London, UK, 17-19 December 2022. Gave the talk entitled 'Bootstrapping Whittle Estimators'.

German Probability and Statistics Days, Mannheim, Germany, 27 September - 1 October, 2021. Gave the talk entitled 'Bootstrapping Whittle Estimators'.

ISOR Colloquium, Department of Statistics and Operation Research, Universität Wien, Austria, 17 May, 2021. Gave the talk entitled 'Bootstrapping Whittle Estimators'.

Workshop on Stein's Method and High-dimensional Time Series Analysis, Bristol, United Kingdom, 29-31 March, 2021. Gave the talk entitled 'Bootstrapping Whittle Estimators'.

4th Workshop on Goodness-of-Fit and Change Point problems, Trento, Italy, 6-8 September, 2019. Gave



the talk entitled ‘Statistical Inference for High Dimensional Time Series’.

Workshop on New Developments in Econometrics and Time Series, Graz, Austria, 6-7 June 2019. Gave the talk entitled ‘Recent Advances in Bootstrapping Functional Time Series’.

CIREQ Conference on Recent Advances on Bootstrap Methods, Montreal, Canada, 10-11 May 2019. Gave the talk entitled ‘Bootstrap Based Inference for High Dimensional Vector Autoregressive Models’.

CMStatistics 2018, 11th International Conference of the ERCIM Working Group on Computational and Methodological Statistics, Pisa, Italy, 14-16 December 2018. Special Invited talk entitled ‘Bootstrap Methods for Functional Time Series’.

4th Conference of the International Society for NonParametric Statistics (ISNPS), Salerno, Italy, 11-15 June 2018. Gave the talk entitled ‘Bootstrap-Based Inference for High Dimensional Vector Autoregressive Models’.

Research Center for Statistics, University of Geneva, Geneva, Switzerland, 26 April 2018. Gave the talk entitled ‘Frequency Domain Bootstrap Methods for Time Series’.

CMStatistics 2017, 10th International Conference of the ERCIM Working Group on Computational and Methodological Statistics, London 16-18 December 2017. Gave the talk entitled ‘Extending the Range of Validity of Autoregressive Bootstrap Methods’.

Australian National University, Canberra, Australia, 19 October 2017. Gave the talk entitled ‘Bootstrap Procedures for Functional Time Series’.

3rd Workshop on Goodness-of-fit and Change Point Problems, Herrenalb, Germany 8-10 September 2017. Gave the talk entitled ‘Bootstrap Based Testing for Functional Time Series’.

9th EMR-IBS and Italian Region Conference, Thessaloniki, 8-12 May 2017. Gave the talk entitled ‘Bootstrap Based Tests for Functional Time Series’.

Workshop on High Dimensional and Functional Data Analysis, Ulm, Germany, 1-2 September 2016. Gave the talk entitled ‘Sieve Bootstrap for Functional Time Series’.

Third Conference of the International Society of Nonparametric Statistics (ISNPS), Avignon, France, 11-15 June 2016. Gave the talk entitled ‘Sieve Bootstrap for Functional Time Series’.

CIRM Week on Stochastic Processes, Luminy, France, 15-19 February 2016. Gave the talk entitled ‘Periodogram Based Tests for Stationarity’.

Goodness-of-Fit Days, Athens, Greece 4-6 September 2015. Gave the talk entitled ‘Frequency Domain Tests for Stationarity’.

Universität Mannheim, Mannheim, Germany, 13 May 2015. Gave the talk entitled ‘Bootstrap Methods for Univariate and Multivariate Time Series’.

2nd Conference of the International Society for NonParametric Statistics (ISNPS), Cádiz, Spain, 12-16 June 2014. Gave the talk entitled ‘Bootstrap Based Inference for Functional Data’.

Institute of Advanced Studies, Wien, Austria, 27 February 2014. Gave the talk entitled ‘Bootstrap for Time

Series’.

Recent Advances in Time Series and Econometrics, Brussels, Belgium, 12-13 September 2013. Gave the talk entitled ‘Estimation of the Fourth Order Cumulant of the Innovations for Linear Processes’.

Recent Developments for Bootstrap Methods in Time Series Data, Copenhagen, Denmark, 8-10 September 2013. Gave the talk entitled ‘Some Problems Related to Recent Developments in Bootstrapping Time Series’.

London School of Economics and Political Science, United Kingdom, 26 October 2012. Gave the talk entitled ‘Bootstrapping Time Series: Some Recent Developments’.

1st Conference of the International Society for Nonparametric Statistics, Chalkidiki, Greece, 15-19 2012. Gave the talk entitled ‘*Bootstrapping Locally Stationary Processes*’.

Statistical Models for Financial Data III, Graz, Austria, May 23-26, 2012. Gave the talk entitled ‘*The Hybrid Wild Bootstrap for Time Series*’.

Universität Wien, Austria, 10 October 2011. Gave the talk entitled ‘*Some Recent Advances in Bootstrapping Time Series*’.

Second NTH Workshop on Finance and Insurance Mathematics, Braunschweig, Germany, June 30, July 1-2, 2011. Gave the talk entitled ‘*The Frequency Domain Wild Bootstrap*’.

International Workshop on Functional and Operational Statistics, Santander, Spain, June 16-18, 2011. Gave the talk entitled ‘*Functional Time Series Prediction*’.

Conference on Dependence in Probability and Statistics, CIRM, Luminy, France, April 4-8, 2011. Gave the talk entitled ‘*The AR-sieve Bootstrap: A New Look at an Old Method*’.

Universität Dortmund, Germany, 7 December 2010. Gave the talk entitled ‘*Bootstrapping Time Series: Some Recent Results*’.

Universität Braunschweig, Germany, 9 July 2010. Gave the talk entitled ‘*Validating Stationarity Assumptions in Time Series Analysis*’.

Conference on Resampling Methods and High Dimensional Data, College Station, Texas A&M University, U.S.A, March 25-26, 2010. Gave the talk entitled ‘*On the Range of Validity of the Autoregressive-Sieve Bootstrap*’.

ERCIM, Computing and Statistics, Limassol, Cyprus, 29-31 October 2009. Gave the talk entitled ‘*Testing equality of Spectral Densities*’.

Universität Heidelberg, Germany, 21 December 2008. Gave the talk entitled ‘*Bootstrapping Locally Stationary Processes*’.

Ruhr-Universität Bochum, Germany, 13 November 2008. Gave the talk entitled ‘*Frequency Domain Bootstrap Methods for Time Series*’.

Bootstrap and Time Series, Kaiserslautern, Germany, June 5-6, 2008. Invited to give the talk entitled ‘*Bootstrapping Frequency Domain Tests in Multivariate Time Series with an Application to Testing Equality*’.

*of Spectral Densities*'.

56th Session of the International Statistical Institute, Lisbon, Portugal, 22-29 August 2007. Gave the talk entitled '*Testing temporal constancy of the spectral structure*'.

Computational and Financial Econometrics, Geneva, Switzerland, 19-22 November 2007. Gave the talk entitled '*Testing stationarity in time series analysis*'.

University of Dortmund, Dortmund, Germany, 12 September 2006. Gave the talk entitled '*Tests of stationarity in time series analysis*'.

University of Athens, Athens, Greece, 14 April 2006. Gave the talk entitled '*Testing time constancy of the spectral structure of a time series*'.

University of Heidelberg, Heidelberg, Germany, 9 December 2004. Gave the talk entitled '*Nonparametric goodness-of-fit tests for time series models in the frequency domain*'.

University of Mannheim, Mannheim, Germany, 7 December 2004. Gave the talk entitled '*Bootstrapping unit root tests in time series analysis: Approaches and problems*'.

Department of Statistics Universidad Carlos III de Madrid, Madrid, Spain, 19 December 2003. Invited to give the talk entitled '*Resampling methods for Integrated processes: Approaches and problems*'.

Current Advances and Trends in Nonparametric Statistics, Crete, July 13-15 2002. Invited to give the talk entitled '*Bootstrap methods for (possible) integrated processes*'.

Resampling Methods in Econometrics, Montreal, Canada, October 13-14 2001. Invited to give the talk entitled '*Bootstrap methods for integrated and cointegrated processes*'.

Joint Statistical Meetings, August 5-9 2001, Atlanta, USA. Invited to give the talk entitled '*Three variations on the block-bootstrap theme*'.

Asymptotic Methods in Statistics and Probability, May 19-20 2001, University of California, Davis. Invited to give the talk entitled '*The Continuous-path block bootstrap*'.

New Directions in Time Series Analysis, Luminy, France, April 22-27 2001. Invited to give the talk entitled '*Autoregressive aided periodogram bootstrap for time series*'.

Recent Advances in Probability and Statistics, Athens, Greece, June 3-5 1999. Invited to give the talk entitled '*Goodness-of-fit tests for time series models*'.

22nd European Meeting of Statisticians, Vilnius, Lithuania, August 12-18, 1998. Invited to give the talk entitled '*The local bootstrap for time series*'.

CRM Workshop on Resampling Methods, Montreal, September 14-20, 1997. Invited to give the talk entitled '*The local bootstrap for Markov processes*'.

Smoothing and Resampling in Economics - Conference at the Humboldt University, Berlin, Germany, October 4-7, 1995. Invited to give the talk entitled '*Goodness-of-fit tests for time series models*'.

## OTHER SELECTED SEMINAR PRESENTATIONS

University of California, San Diego, 26 May 2009. Gave the talk entitled '*Hybrid bootstrap for time series*'.

NSF/NBER Time Series Conference 2005, Heidelberg, Germany, September 22-24, 2005. Gave the talk entitled '*Testing temporal constancy on the second order structure of a time series*'.

25th European Meeting of Statisticians, Oslo, Norway, July 24-28, 2005. Gave the talk entitled '*A nonparametric test for stationarity against local stationarity in time series analysis*'.

Workshop on Econometric Time Series Analysis, Linz, Austria 29 September-1 October 2003. Gave the talk entitled '*Some issues related to bootstrapping unit root tests*'.

Pennsylvania State University, 27 March 2000. Invited to give the talk entitled '*Nonparametric goodness-of-fit tests for time series*'.

University of California, San Diego, May 1997. Gave three talks on '*The local bootstrap for Markov processes*', '*The local bootstrap for periodogram statistics*' and '*Goodness-of-fit tests for time series models*'.

4th World Congress of the Bernoulli Society, Vienna, August 26-31, 1996. Gave the talk entitled '*The local bootstrap for time series data*'.

21th European Meeting of Statisticians, Aarhus, August 21-25, 1995. Gave the talk entitled '*Checking the fit of time series model by comparing parametric and nonparametric spectral density estimates*'.

NBER Time Series Seminar, Vienna, October 21-23, 1993. Gave the talk entitled '*A bootstrap based model checking procedure for transfer function models*'.

Bootstrapping and Related Techniques, Trier, June 4-8, 1990. Gave the talk entitled '*Bootstrapping vector autocorrelations of time series*'.

University of Kent at Canterbury, Kent, March 1990. Gave the talk entitled '*Vector autocorrelations of time series*'.

## DOCTORAL THESIS SUPERVISION OR JOINT SUPERVISION

Mr. Arif Dowla, University of California, San Diego. Joint supervision with Prof. Dimitris Politis, Topic: Local block bootstrap inference for nonstationary time series, 2002.

Mr. Cameron Parker, University of California, San Diego. Joint supervision with Prof. Dimitris Politis, Topic: Block bootstrap methods for nonstationary (integrated) series, 2004.

Mr. Marios Sergides, University of Cyprus. Topic: Frequency domain bootstrap methods for local stationary processes, 2004.

Mr Tobias Niebuhr, Technische Universitaet Braunschweig. Joint supervision with Prof. Jens-Peter Kreiss. Topic: Bootstrap for continuous-time autoregressive moving-average processes, 2014.

Ms. Maria Frangeskou, University of Cyprus. Topic: Statistical inference for linear and nonlinear time

series, 2017.

Mr Jonas Krampe, Technische Universitaet Braunschweig. Joint supervision with Prof. Jens-Peter Kreiss. Topic: Spectral-density driven bootstrap and time series modeling on dynamic networks, 2018.

Mr. Dimitris Pilavakis, University of Cyprus. Topic: Bootstrap based inference for functional time series, 2019.

Mr Daniel Rademacher, Technische Universitaet Braunschweig. Joint supervision with Prof. Jens-Peter Kreiss. Topic: Spectral inference for functional time series in Hilbert space, 2021.

Mr. Panayiotis Maouris, University of Cyprus. Topic: Statistical inference for periodic time series, ongoing.

## **MASTER THESIS SUPERVISION**

Ms. Maria Frangeskou, University of Cyprus. Topic: Short Term Load Prediction Using Functional Time Series Methods: Applications to the Electricity Authority of Cyprus System, 2011.

Mr. Dimitris Pilavakis, University of Cyprus. Topic: Prediction of the Daily Power Demand Shapes for the Electricity Authority of Cyprus System Using Functional Time Series Methods, 2010.

Mr. Michalis Kolossiatis, University of Cyprus. Topic: Portmanteau type tests based on residual autocorrelations in time series analysis, 2005.

## **VISITS AND VISITING POSITIONS**

Campus Visitor, 11-23 October 2017, Australian National University, Canberra, Australia.

Research in Pairs Visitor, Mathematisches Forschungsinstitut, Oberwolfach, 3-16 Januar 2016, Oberwolfach, Germany.

DAAD Visiting Professor, Department of Mathematics, Technische Universität Braunschweig, Germany, January to September 2015.

Department of Mathematics, Technische Universität Braunschweig, Germany. 20 June to 16 July 2010.

Visiting Professor, Department of Mathematics, University of California, San Diego. Spring Quarter 2009.

Department of Mathematics, Technische Universität Braunschweig, Germany. 20 October to 20 December 2008.

Department of Mathematics, Ruhr-Universität Bochum, Bochum, Germany. September 2007.

Department of Mathematics, Laboratoire IMAG-LMC, University Joseph Fourier, Grenoble, France. 27 February to 05 March 2005.

Department of Economics, University of Mannheim, Mannheim, Germany. Period: 06 to 10 December 2004.

Visiting Professor, Department of Mathematics, University of California, San Diego. Winter Quarter 2000.

Department of Economics, Humboldt University Berlin, Berlin, Germany. Research Visitor of the SFB 373 (Sonserforschungsbereich 373). July 1999.

Department of Mathematics, University of California, San Diego. ‘Week Long Visitor’, 23 to 31 May 1997.

Department of Mathematics, University of Kent at Canterbury, Kent, U.K. Research Visitor. February and March 1990.

## **GRANTS AND SCHOLARSHIPS**

Principal Investigator of a two years research grant from the University of Cyprus (Euro 46,355) on Frequency Domain Statistical Inference for Multivariate, High Dimensional and Functional Time Series. October 2021-September 2023.

Principal Investigator of a two years research grant from the University of Cyprus (Euro 21,000) on Bootstrap Methods for Functional Time Series. January 2017-December 2018.

Principal Investigator (together with Theophanis Sapatinas) of a two years research grant from the Electricity Authority of Cyprus (Euro 101,000) on Short Term Load Prediction Using Nonparametric Functional Time Series Methods. May 2008-May 2010.

I was awarded a 2 year Research Visit Grant from the Cyprus Research Promotion Foundation on “Cyprus-France Bilateral Agreement Program”, Cyprus, 2008.

I was awarded a 2 year Research Visit Grant from the Cyprus Research Promotion Foundation on “Cyprus-France Bilateral Agreement Program”, Cyprus, 2004).

Collaborator (with Dimitris Politis) for the NSF Grant DMS-97-03964, 1 June 1998 to 31 May 2000.

I was awarded a three years Habilitation Scholarship from the German National Research Foundation, 1993.

I was awarded a British Council Scholarship for a four weeks research stay at the Department of Mathematics and Statistics, University of Kent at Canterbury, March 1990.

## **PROFESSIONAL SERVICE**

Co-organizer (with Jens-Peter Kreiss) of an Invited Paper Session on ‘Statistics for Dependent Data’ at the 6th International Symposium on Nonparametric Statistics, Braga, Portugal, 25-29 June 2024.

Co-organizer (with T. Sapatinas and S. Agapiou) of the 5th International Symposium on Nonparametric Statistics. Paphos, 20-24 June 2022.

Co-organizer (with Jens-Peter Kreiss) of an Invited Paper Session on ‘Bootstrap Methods for Time Series’ at the Fourth Conference of the Society of Nonparametric Statistics, Salerno, Italy, 11-15 June 2018.

Organizer of an Invited Paper Session on 'Functional Time Series' at the Third Conference of the Society of Nonparametric Statistics, Avignon, France, 11-15 June 2016.

Co-Organizer (with Jens-Peter Kreiss and Anne Leucht) of the workshop 'Recent developments in statistics for complex dependent data'. Locum, Germany, 27-30 August 2015.

Organizer of an Invited Paper Session on 'Functional Time Series' at the Second Conference of the Society of Nonparametric Statistics, Cádiz, Spain, 12-16 June 2014.

Organizer of an Invited Paper Session on 'Interval Estimation' at the First Conference of the Society of Nonparametric Statistics, Chalkidiki, Greece, 15-19 June 2012.

Member of the Charting Committee and of the Board of Directors of the International Society of Nonparametric Statistics, since 2012.

Co-Organizer (with Kostas Fokianos, Theofanis Sapatinas and Dimitris Politis) of the workshop 'Recent Advances in Time Series Analysis'. Protaras, Cyprus, 9-12 June 2012.

Member of the Program Committee of the Workshop Fourier Meets Wavelets, Karlsruhe Institute of Technology, Karlsruhe, Germany, September 6-7, 2010.

Organizer of an Invited Paper Session on Time Series at the European Meeting of Statisticians, University of Piraeus, Greece, August 17-22, 2010.

Member of the Program Committee of the Workshop Industry and Price Forecasting, Paris, France, June 3-4, 2010.

Member of the Organizing Committee of the conference on Resampling Methods and High Dimensional Data, College Station, Texas A&M University, U.S.A, March 25-26, 2010.

Co-Organizer (with Kostas Fokianos, Theofanis Sapatinas and Rainer von Sachs) of the workshop 'Recent Advances in Time Series Analysis'. Protaras, Cyprus, 8-11 June 2008.

Co-Organizer (with Theofanis Sapatinas and Kosta Fokianos) of the Second Probability and Statistics Seminar at the Department of Mathematics and Statistics of the University of Cyprus, November-December 2006.

Co-Organizer (with Theofanis Sapatinas and Rainer von Sachs) of the workshop 'Recent Advances in Time Series Analysis'. Protaras, Cyprus, 9-12 June 2004.

Organizer of the mini symposium 'Inference Problems in Statistics' of the 6th Hellenic-European Conference on Computer Mathematics and its Applications (HERCMA' 2003), Athens 25-27 September 2003.

Co-Organizer (with Theofanis Sapatinas) of the First Probability and Statistics Seminar at the Department of Mathematics and Statistics of the University of Cyprus, November-December 2002.

Member of the IMS Nominations Committee 2002-2003 for the development of a slate of candidates for President-elect and the Council of the Institute of Mathematical Statistics.

Member of the international advisory board and organizer of invited paper session of the conference: Current

Advances and Trends in Nonparametric Statistics, July 15-19, 2002, Crete.

Member of the External Evaluation Committee of the Department of Applied Mathematics of the University of Crete, 5-11 June 2011.

Member of the Evaluation Committee of the Department of Statistics and Actuarial Mathematics of the University of Aegean.

### **EDITORIAL DUTIES:**

Associate Editor of the *Journal of Time Series Analysis* (July 2022-present).

Associate Editor of the *Journal of Time Series Econometrics* (February 2008-present).

Associate Editor of *Bernoulli*, (January 2022-2025).

Associate Editor of the *Journal of Statistical Planning and Inference* ( January 2012-December 2021).

Associate Editor of *Metrika* (January 2009-December 2018).

Associate Editor of the *Journal of Nonparametric Statistics* (January 2008 - December 2010).

**REFEREE FOR THE JOURNALS:** Annals of Statistics, Annals of Applied Statistics, Annals of Applied Probability, Annals of the Institute of Statistical Mathematics, Bernoulli, Biometrika, Canadian Journal of Statistics, Computational Statistics and Data Analysis, Econometrica, Econometric Theory, Econometrics Journal, Journal of the American Statistical Association, Journal of Business and Economic Statistics, Journal of Computational and Graphical Statistics, Journal of Econometrics, Journal of Nonparametric Statistics, Journal of the Royal Statistical Society: Series B, Journal of Multivariate Analysis, Journal of Statistical Planning and Inference, Journal of Time Series Analysis, International Economic Review, Probability Theory and Related Fields, Sankhyā: Series A, Scandinavian Journal of Statistics, Signal Processing, Statistica Sinica, Statistics, Statistics and Decisions, Stochastic Processes and its Applications, Technometrics, Test.

**REVIEWER FOR GRANT PROPOSALS:** European Research Association (EU), Hellenic Foundation for Research and Innovation (Greece), National Science Foundation (USA), National Research Council Canada (Canada), Swiss National Science Foundation (Switzerland), Central Academic Advisory Committee-Academia Sinica (China), Dutch Research Council (Netherlands).

### **TEACHING**

**Freie Universität Berlin, Germany:** 1985-1990: *Probability and Statistics I, Probability and Statistics II, Mathematics for Economists I, II, Statistics for Economists I, II.*

**Technische Universität Berlin, Germany:** 1991-1993: *Linear Models, Nonparametric Statistics, Multivariate Analysis, Time Series Analysis.*

**Universidad Carlos III de Madrid, Spain:** 2006, 2008, 2010: *Graduate courses on Bootstrap and Resampling Methods for PhD students.*

**University of California, San Diego, USA:** 2000, 2009: *Undergraduate courses on Calculus I and Calculus III.*



**Technische Universität Braunschweig, Germany:** 2009, 2010, 2012, 2015: Graduate courses on *Spectral Methods in Time Series Analysis*, *Bootstrap Methods for Time Series*, *Functional Time Series*.

**University of Cyprus, Cyprus:** Undergraduate courses: *Probability and Statistics I*, *Probability and Statistics II*, *Stochastic Processes*, *Time Series Analysis*, *Multivariate Analysis*. Graduate courses: *Statistical Theory I*, *Statistical Theory II*, *Mathematical Statistics*, *Probability Theory*, *Time Series Analysis*, *Topics in Analysis*, *Resampling Methods in Statistics*, *Nonparametric Function Estimation*.

## CONSULTING

*Cyprus Transmission System Operator, 2010 on the topic 'Cluster Analysis of Daily Total Generation Data'.*  
*Meteorological Institute of the Republic of Cyprus, 1995, on the topic 'Fitting Distributions to Rainfall Data' and 'Modeling the Seasonal Behavior of Rainfall'.*

*German Federal Institute of Material Research, Berlin, May 1989, on the topic 'Transfer Function Modeling of Time Series Data'.*

## PROFESSIONAL AFFILIATIONS

*Institute of Mathematical Statistics (IMS), Bernoulli Society for Mathematical Statistics and Probability (BS).*