Dr. Haeran Cho

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Education

October 2007 – October 2010	PhD in Statistics, Department of Statistics, London School of Economics, UK. *Transferred from the University of Bristol after 2 years.* • Supervisor: Prof. Piotr Fryzlewicz. • Topic: Sparse modelling and estimation for nonstationary time series and high-dimensional data.
2003 – 2007	BSc in Statistics, Department of Statistics, Seoul National University, South Korea. • GPA 3.85 out of 4.3 (percentage equivalent: 90%).

Employment

June 2010 – present	Postdoctoral research officer, Department of Statistics, London School of Economics, UK. • Working with Prof. Qiwei Yao. • Topic: Daily electricity demand forecasting, high-dimensional time series modelling.

Awards and honours

2013	Royal Statistical Society Research Prize.
August 2010	Laha travel award; Institute of Mathematical Statistics, Financial support to present a paper at the IMS 2010 Annual Meeting (Gothenburg, Sweden).
2009 – 2010	New Futures Fund Scholarship, Department of Statistics Studentship; London School of Economics.
2007 – 2009	Overseas Research Student Award; University of Bristol Postgraduate Scholarships and Higher Education Funding Council for England.
2003 – 2007	Dooeul Scholarship; Dooeul Scholarship Foundation (Private organisation). Given to female students from selected universities in Korea for strong academic performance, covered the university tuition fees.

Research interests

Change-point detection, nonstationary time series, high-dimensional variable selection, multiscale modelling and estimation, functional data analysis, electricity demand forecasting.

Publications

Journal papers

H. Cho, Y. Goude, X. Brossat and Q. Yao (2012) Modelling and forecasting daily electricity load curves: a hybrid approach. *Journal of the American Statistical Association*, **108** 7–21.

O. Christodoulaki, H. Cho and P. Fryzlewicz (2012) A reflection of history: fluctuations in Greek sovereign risk between 1914 and 1929. *European Review of Economic History*, **16** 550–571.

H. Cho and P. Fryzlewicz (2012) High-dimensional variable selection via tilting. *Journal of the Royal Statistical Society Series B*, **74** 593–622.

H. Cho and P. Fryzlewicz (2012) Multiscale and multilevel technique for consistent segmentation of nonstationary time series. *Statistica Sinica* **22** 207–229.

H. Cho and P. Fryzlewicz (2011) Multiscale interpretation of taut string estimation and its connection to Unbalanced Haar wavelets, *Statistics and Computing* **21** 671–681.

Working papers

H. Cho and P. Fryzlewicz (2012) Multiple change-point detection for high-dimensional time series via Sparsified Binary Segmentation, *In submission*.

Conference proceedings

H. Cho and P. Fryzlewicz (2008) Multiscale breakpoint detection in piecewise stationary AR models. Proceedings of IASC 2008, Yokohama, Japan, 5 – 8 December 2008.

Software

Accompanying R package *tilting* for the paper "High-dimensional variable selection via tilting" (2012).
Available on `http://cran.r-project.org/web/packages/tilting/index.html`.

Accompanying R code for the paper "Multiscale and multilevel technique for consistent segmentation of nonstationary time series" (2012).
Available on `http://personal.lse.ac.uk/choh1/msml_technique.html`.

Invited conference and seminar talks

2013 – Institute of Statistics, Biostatistics and Actuarial Sciences seminar,
Université catholique de Louvain, Belgium.
2012 – Joint Statistical Meetings, San Diego, USA.
– MACSI Seminar Series, University of Limerick, Ireland.
2011 – Wavelets in statistics reading group, Department of Statistics, Lancaster University, UK.
2010 – INSPIRE: Conference on information representation and estimation, University College London, UK.
2009 – INSPIRE: Conference on information representation and estimation, Imperial College London, UK.

Contributed conference talks and posters

2013	– Workshop on Industry and Practices for Forecasting, EDF Recherche & Développement, France (talk).
	– Recent Advances in Nonstationary Time Series, Lancaster University, UK (talk).
2012	– Financial time series analysis: high-dimensionality, non-stationarity and the financial Crisis, Institute for Mathematical Sciences, Singapore (poster).
2010	– Annual Meeting of the Institute of Mathematical Statistics, Chalmers University of Technology, Sweden (talk).
	– Sparse structures: statistical theory and practice, SuSTaIn, University of Bristol, UK (talk).
2009	– Machine Learning Summer School, University of Cambridge, UK (poster).
	– Institute of Mathematical Statistics Asia Pacific rim meetings, Seoul National University, South Korea (talk).
	– Young statisticians' meeting, University of Strathclyde, UK (talk).
2008	– Young European statisticians (YES II) workshop, Eurandom, Eindhoven, Netherlands (talk).
	– International workshop on recent advances in time series analysis, Protaras, Cyprus (poster).
	– Research student's conference in probability and statistics, University of Nottingham, UK (talk).

Refereeing and reviewing

Journal refereeing for Journal of the Royal Statistical Society, Series B, Journal of Time Series Analysis, Journal of the Korean Statistical Society, Journal of the American Statistical Association, Journal of Nonparametric Statistics, Advances in Statistical Analysis, Journal of Computational and Graphical Statistics, Computational Statistics and Data Analysis, Journal of Forecasting, Computational Statistics, Journal of Statistical Planning and Inference, IEEE Transactions on Reliability, Journal of Probability and Statistics, Stat (ISI's Journal for the Rapid Dissemination of Statistics Research), and Electronic Journal of Statistics.
Journal screening for Journal of the Korean Statistical Society.
Book reviewing for Springer Verlag.

Teaching

2009 – present	Teaching assistant at the London School of Economics. • Courses: Elementary statistical theory, Time series, Statistical models and data analysis Statistical inference: principles, methods and computation.
2007 – 2009	Teaching assistant at the University of Bristol. • Courses: Financial mathematics, Time series analysis, Theory of inference.

General

Skills

Languages: English (fluent in speaking, reading and writing), Korean (mother tongue).

Memberships

The Institute of Mathematical Statistics (IMS), The Royal Statistical Society (RSS).

updated: March 18, 2013