Nonlinear Time Series Analysis
Thresholding and Beyond

in honour of

PROFESSOR HOWELL TONG'S 70TH BIRTHDAY

Programme (as on 7 September 2014)

Friday 19 September

11.00-11.10	Opening (New Theatre)
11.10-11.50	*Plenary Speech*: **Threshold Modelling – Some Recent Advances and Challenges** (New Theatre) Kung-Sik Chan, University of Iowa
11.50-12.50	*Session A*: Further Thresholding (New Theatre) Chair: Ngai-Hang Chan **Threshold Models for Functional Time Series with Applications** Ruey Tsay, University of Chicago **Nonstationary Processes with a Threshold** Dag Bjarne Tjøstheim, University of Bergen
13.00-14.30	**Lunch** (Room EAS 1.68)
14.30-16.00	*Session B1*: More Thresholding (New Theatre) Chair: Kung-Sik Chan **LASSO Estimation of Threshold Autoregressive Models** Ngai-Hang Chan, Chinese University of Hong Kong **Threshold Models for Count Time Series** Jiazhu Pan, University of Strathclyde **Some Results on the Buffered Time Series Models** Wai Keung Li, University of Hong Kong
14.30-16.00	*Session B2*: Inference on Change-points (Room EAS 3.04) Chair: Piotr Fryzlewicz **Change-points in High Dimensional Settings** John Aston, Cambridge University **High-dimensional Panel Data Segmentation** Haeran Cho, University of Bristol **Inference on Structural Breaks in Panel Data Models with Interactive Fixed Effects** Degui Li, University of York

Friday 19 September

16.00-16.30	**Tea & Coffee** (Room EAS 1.68)
16.30-18.00	*Session C1*: Non/Semi-parametric Inference (New Theatre) Chair: Yingcun Xia **Comparing the Accuracy of Copula-Based Multivariate Density Forecasts in Selected Regions of Support** Cees Diks, University of Amsterdam Roetersstraa **Semiparametric Nonlinear Regression Models for Irregularly Located Spatial Time-series Data** Zudi Lu, University of Southampton **An Iterative Estimation Procedure for Generalised Varying Coefficient Models with Unspecified Link Functions** Wenyang Zhang, University of York
16.30-18.00	*Session C2*: High-dimensional time series (Room EAS 3.04) Chair: Ruey Tsay **Shrinkage Estimation of the Dependence Structure of High Dimensional Time Series** Rainer von Sachs, Catholic University of Louvain **The Use of Randomness in Time Series Analysis** Piotr Fryzlewicz, LSE **Estimation of High-dimensional Vector Auto-regressive Processes** Wei Biao Wu, University of Chicago
18.30	**Banquet** (LSE Senior Common Room) **Conference Dinner Speech by Bernard Silverman**

Saturday 20 September

9.30-11.00	*Session D1*: Inference for Volatility (New Theatre) Chair: Shaojun Guo **Volatility Decomposition and Online Volatility-Estimation with Nonlinear Market Microstructure Noise Models** Rainer Dahlhaus, University of Heidelberg **IntegratedARCH and ARmodels: origins of long memory** Liudas Giraitis, Queen Mary University of London **Self-weighted LAD Estimation for Infinite Variance Threshold Autoregressive Models** Shiqing Ling, Hong Kong University of Science and Technology
9.30-11.00	*Session D2*: Nonstationary Processes (Room EAS 3.04) Chair: Clifford Lam **Analysis and Forecasting of Locally Stationary Time Series** Guy Nason, University of Bristol **Dynamic Factor Models, Cointegration, and Error Correction Mechanisms** Matteo Barigozzi, LSE **Identifying Cointegration by Eigenanalysis** Rongmao Zhang, Zhejiang University
11.00-11.30	**Tea & Coffee** (Room EAS 1.68)
11.30-12.30	*Session E1*: Inference for Large Matrices (New Theatre) Chair: Javier Hidalgo **Advances in Shrinkage Methods for Spectral Matrices** Andrew Walden, Imperial College **Nonparametric Eigenvalue-Regularized Precision or Covariance Matrix Estimator** Clifford Lam, LSE
11.30-12.30	*Session E2*: Non-Standard Convergence Rates (Room EAS 3.04) Chair: Haeran Cho **Extending the Scope of the Cube Root Asymptotics** Myung Seo, LSE **High dimensional and Banded Vector Autoregression** Shaojun Guo, LSE & Chinese Academy of Sciences
12.30-14.00	**Lunch**

Saturday 20 September

14.00-15.30	*Session F1*: Spectral Methods (New Theatre) Chair: Wai Keung Li **Quantile Spectral Processes Asymptotic Analysis and Inference** Marc Hallin, Free University of Brussels and Princeton University **Estimating Multivariate Non-stationary Time Series Models in the Fourier Domain** Sofia Olhede, University College London **Whittle Likelihood Estimation of Nonlinear Autoregressive Models with Moving Average Errors** Yingcun Xia, Singapore National University
14.00-15.30	*Session F2*: Continuous Time Processes and Long Memory (Room EAS 3.04) Chair: Myung Seo **Prediction of Lévy-driven CARMA Processes** Peter Brockwell, Colorado State University **Bayesian Inference for Partially Observed SDEs Driven by Fractional Brownian Motion** Kostas Kalogeropoulos, LSE **Specification in time series regression models** Javier Hidalgo, LSE
15.30-16.00	**Tea & Coffee** (Room EAS 1.68)
16.00-17.30	*Session G1*: Chaos and Nonlinearity (New Theatre) Chair: Dag Tjøstheim **Analysis of a Laser-Chaos Communication Experiment** Tony Lawrance, University of Warwick **Switch Time Modeling for Gene Expression: An Overview** Bärbel Finkenstädt, University of Warwick **Thresholding and Beyond in Ecology** Nils Christian Stenseth, University of Oslo
16.00-17.30	*Session G2*: Resampling Methods (Room EAS 3.04) Chair: Matteo Barigozzi **Baxter's Inequality and Sieve Bootstrap for Random Fields** Jens-Peter Kreiss, Technical University of Braunschweig **Neural Network Sieve Bootstrap for Nonlinear Time Series** Michele La Rocca, University of Salerno **The Mathematical Structure of Genetic Information: (Nonlinear) Time Series Perspective** Simone Giannerini, University of Bologna
17.35	**Closing Remarks by Howell Tong** (New Theatre)