Konstantinos Kalogeropoulos

PERSONAL DETAILS

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APPOINTMENTS

London School of Economics, Department of Statistics

Associate Professor in Statistics (2013 - present)
Lecturer in Statistics (2008 - 2013).

University of Cambridge, Department of Engineering, Signal Processing Lab

Research Associate (2006 - 2008).

- Project: Bayesian methods for diffusion-driven models in ultra high frequency data
- Supervisor: Prof. Simon Godsill

EDUCATION

Athens University of Economics and Business

PhD in Statistics (Awarded June 2007).

- Dissertation Topic: Bayesian Inference for Multidimensional Diffusion Processes
- Supervisor: P. Dellaportas
- Co-Supervisor: G. O. Roberts - University of Warwick.
- Winner of the Savage award 2007 - Theory and Methods.
- Ranked Excellent by the following committee
  External Reviewers: Y. Ait-Sahalia - Princeton University, M. Sørensen - University of Copenhagen, A. Stuart - University of Warwick,
  Internal Reviewers: M. Zazanis, T. Giannakopoulos.

Brown University, Providence, RI USA.

MSc, Biostatistics, May 2003

- Dissertation Topic: Defining and testing diagnostic equivalence.
- Advisor: Constantine Gatsonis

Athens University of Economics and Business

B.S., Statistics, July, 2001

RESEARCH INTERESTS

Bayesian inference for latent dynamic systems

Stochastic processes and partially observed systems

Sequential Monte Carlo and Markov chain Monte Carlo methods

Gaussian processes and structured dependence modelling

Bayesian machine learning and latent-variable models

Applications in epidemic modelling and financial econometrics

Working Papers

Bouranis L., Demiris N., Barmpounakis P. and Kalogeropoulos K. (2026). Exchangeable Gaussian Processes with Applications to Epidemics.

Aschermayr P., Demiris N. and Kalogeropoulos K. (2026). Semi-Markov Models with Particle-Based Bayesian Inference for Epidemics.

Dubiel-Teleszynski T., Kalogeropoulos K. and Karouzakis N. (2026). Dynamic Inference in Term Structure Models with Unspanned Latent Risks.

Vamvourellis K., Phillips L. and Kalogeropoulos K. (2026). Bayesian Benefit–Risk Assessment with Dependent Outcomes via Latent Factor Models.

Giudice G., Geneletti S. and Kalogeropoulos K. (2026) Evaluating the Impact of COVID-19 Vaccination in the United Kingdom: A Gaussian Process Approach

Journal Articles

Bouranis L., Demiris N., Kalogeropoulos K. and Ntzoufras I. (2025). Bayesian Analysis of Diffusion-Driven Multi-Type Epidemic Models with Application to COVID-19. *Journal of the Royal Statistical Society: Series A Forthcoming*

Chatzilena A., Demiris N. and Kalogeropoulos K. (2025) A modelling framework for the analysis of the transmission of SARS-CoV2. *Statistics in Medicine* 43(23): 2542-2558

Dubiel-Teleszynski T. Kalogeropoulos K. and Karouzakis N. (2024) Sequential Learning and Economic Benefits from Dynamic Term Structure Models. *Management Science* 70(4):2236-2254.

Vamvourellis K, Kalogeropoulos K and Moustaki I. (2023) Assessment of Generalised Bayesian Structural Equation Models for Continuous and Binary Data. *British Journal of Mathematical and Statistical Psychology*, 76(3), 559-584

Malesios C., Demiris N. Kalogeropoulos K., and I. Ntzoufras. (2017) Bayesian spatio-temporal epidemic models with applications to sheep pox. *Statistics in Medicine* 36(20): 3216-3230.

Dureau J., Kalogeropoulos K., Vickerman P., Pickles M., Boily M.C. (2016) A Bayesian approach to estimate changes in condom use from limited HIV prevalence data. *Journal of Royal Statistical Society, Series C (Applied Statistics).* 65(2) 237-257.

Beskos A, Dureau J. and Kalogeropoulos K. (2015) Bayesian Inference for partially observed SDEs Driven by Fractional Brownian Motion. *Biometrika*,102 (4): 809-827.

Beskos, A., Kalogeropoulos, K., and Pazos, E. (2013) Advanced Markov Chain Monte Carlo methods for sampling on diffusion pathspace. *Stochastic Processes and their Applications.* 123 (4) 1415-1453

Dureau J., Kalogeropoulos K. and Baguelin M. (2013). Capturing the time-varying drivers of an epidemic via stochastic dynamical systems. *Biostatistics* 14(3) 541-555

Kalogeropoulos K., Dellaportas P. and Roberts G.O. (2011). Likelihood based inference for correlated diffusions. *Canadian Journal of Statistics*, 39(1): 52-72.

Kalogeropoulos K., Roberts G.O. and Dellaportas P. (2010). Inference for stochastic volatility models using time change transformations. *Annals of Statistics*, 38(2): 784-807.

Kalogeropoulos K. (2007). Likelihood-Based inference for a class of multivariate diffusions with unobserved paths. *Journal of Statistical Planning and Inference*, 137: 3092-3102.

Contributions to Discussion Papers

Kalogeropoulos K. and Papaspiliopoulos O. (2008). Discussion on Goubar et al (2008 Journal of Royal Statistical Society Series A 171(3):1-27).

Kalogeropoulos K. (2006). Discussion on Beskos et al (2006 Journal of Royal Statistical Society Series B 68(3):333-382).

Refereed Conference Papers

Kalogeropoulos K., Demiris N. and Papaspiliopoulos O. (2008). Diffusion-driven models for physiological processes. *International Workshop on Applied Probability (IWAP) 2008.*

Kalogeropoulos K., Roberts G.O. and Dellaportas P. (2006). Irreducible MCMC schemes for diffusion driven stochastic volatility models. *Nonlinear Statistical Signal Processing Workshop (NSSPW) 2006.*

Teaching

Since joining LSE, I have developed and taught courses in Bayesian statistics, machine learning and computational inference at undergraduate and postgraduate level.

Current teaching includes:
- ST308: Bayesian Inference
- ST451: Bayesian Machine Learning
- ME315: Machine Learning in Practice (LSE Summer School)

Other teaching has included:
- ST202: Probability Distribution Theory and Inference
- ST312: Applied Statistics Project
- ST433: Computational Methods in Finance and Insurance
- ST2195: Programming for Data Science
- ST3189: Machine Learning

PhD Supervision

Xinhui Liu (2024 – present), first supervisor
Patrick Aschermayr (2018 – 2023), first supervisor
Konstantinos Vamvourellis (2016 – 2022), first supervisor
Gianluca Giudice (2016 – 2023), second supervisor
Filippo Pellegrino (2017 – 2023), first supervisor
Tomasz Dubiel-Teleszynski (2013 – 2022), first supervisor
Joseph Dureau (2010 – 2013), first supervisor

Professional Activities

Programme Director, MSc Statistics, LSE
Coordinating MSc Programme Director, Department of Statistics, LSE
Associate Editor, *ACM Transactions on Probabilistic Machine Learning*
Former Associate Editor, *Journal of the Royal Statistical Society: Series A* and *Series C*
Referee for journals including *Annals of Statistics*, *Journal of the Royal Statistical Society: Series B*, *Biometrika*, *Bayesian Analysis*, *Statistics and Computing*, *Biostatistics*, *Computational Statistics and Data Analysis* and *AISTATS*
Member of the organising committee of the Greek Stochastics workshop series
Chief Examiner for University of London International Programme courses

External PhD Examination

Bocconi University
University of Florence
University of Manchester
Athens University of Economics and Business
Imperial College London
University College London

Grants and Awards	EPSRC First Grant Scheme (2013–2015): Bayesian inference for latent diffusions from partial observations and expectations Savage Award 2007 – Theory and Methods Section Marie Curie PhD Fellowship Irakleitos PhD Fellowship, Athens University of Economics and Business
Selected Presentations	Exchangeable Gaussian Processes with Applications to Epidemics. University of Warwick, Department of Statistics. Invited Talk (2026) Sequential Learning and Economic Benefits from Dynamic Term Structure Models. ISBA World Meeting, Venice, Italy (2024) Sequential Learning and Economic Benefits from Dynamic Term Structure Models. IMS Annual Meeting, London, UK (2022) Bayesian Sequential Learning for Hidden Semi-Markov Models. IMS Annual Meeting, London, UK (2022)