

Sylvain Barde

Curriculum Vitae

Contact School of Economics, Sibson Building
University of Kent
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Education *Ph.D., Economics*, May 2007
University of Kent
Canterbury, UK.
Thesis: *A Comparative Economic Analysis of Agglomeration Theory*
Adviser: Dr John Peirson.
Committee: Dr. William Collier, Dr. Henry Overman (LSE).
M.Sc, International Finance and Economic Development, September 2002
University of Kent
Canterbury, UK.
With distinction
Diplome de l'IEP de Bordeaux, June 2001
Institut d'Etudes Politiques
Bordeaux, France

Honors *Chevening Scholarship 2001-2002*
Awarded by the Foreign Office in 2001
Ranked first of 194 graduands at the IEP de Bordeaux, 2001 cohort

Memberships *2003–present*: Royal Economic Society (RES)
2009–present: American Economic Association (AEA)

Miscellaneous *Citizenship*: French.
Languages: Bi-lingual French and English, fluent Spanish.
Computer literacy: Python, Matlab, C++ (numerical analysis), Stata, R (econometrics), QGIS, ArcGIS (GIS analysis), SQL (database management and GIS analysis), HTML (web applications), Latex.

Employment

9/2018–current	Senior Lecturer in Economics - Director of Admissions University of Kent
9/2010–9/2018	Lecturer in Economics - Director of Placements University of Kent
9/2007–9/2010	Research Economist Observatoire Français des Conjonctures Economiques
10/2003–7/2007	Teaching Assistant University of Kent

Research Activity

Research Interests

- Computational economics, Model validation, Likelihood-free inference, Spatial Econometrics, Economic Geography.

Current Work

- “Large-Scale Model Comparison with Fast Model Confidence Sets”, *SSRN* N° 4907732, 2024, revise & resubmit with *Journal of Econometrics*.
- With Drs Rowan Cherodian and Guy Tchuente, “Moran’s I 2-Stage Lasso: for Models with Spatial Correlation and Endogenous Variables”, *arXiv* 2404.02584, 2024.
- With Prof. Alex Klein, “Transportation Costs in the Age of Road Freight: Evidence from United States 1955-2010”, *SSRN* N° 4798888, 2024.

Published Journal Papers

- With Drs Rowan Cherodian and Guy Tchuente, “Moran’s I Lasso for models with spatially correlated data”, *Econometrics Journal*, forthcoming 2025.
- “Bayesian Estimation of Large-Scale Simulation Models with Gaussian Process Regression Surrogates”, *Computational Statistics and Data Analysis*, Vol 196, 2024.
- With Drs Alessandro Cusimano and Fabio Mazzola, “Place-based policy in southern Italy: evidence from a dose–response approach”, *Regional Studies*, Vol 58, N°8, 2021.
- “Macroeconomic simulation comparison with a multivariate extension of the Markov information criterion”, *Journal of Economic Dynamics and Control*, Vol. 111, 2020.
- “A practical, universal, information criterion over N^{th} order Markov processes”, *Computational Economics*, Vol.50, N° 2, 2017.
- “Direct comparison of agent-based models of herding in financial markets”, *Journal of Economic Dynamics and Control*, Vol. 73, 2016.
- “Back to the Future: Economic Self-Organisation and Maximum Entropy Prediction”, *Computational Economics*, Vol. 45, N° 2, 2015.
- “Of Ants and Voters: Maximum Entropy prediction of agent-based models with recruitment”, *Special Issue of the Revue de l’OFCE on Agent-Based Models and Economic Policy*, J.-L. Gaffard & M. Napoletano Eds., October 2012.
- With Dr John Peirson, “Non-negativity and agglomeration behaviour of the quasi-linear logarithmic model of NEG”, *Letters in Spatial and Resource Sciences*, Vol 4, N°1, March 2011.
- “Increasing returns and the spatial structure of French wages”, *Spatial Economic Analysis*, Vol. 5, N° 1, March 2010.

- “Knowledge spillovers, black holes and the equilibrium location of vertically linked industries”, *Journal of Economic Geography*, Vol. 10, N° 1, 2010.
- “Agglomeration incentives in a spatial Cournot model”, *Letters in Spatial and Resource Sciences*, N° 1, 2008.
- “Rendements croissants et structure spatiale des salaires en France”, *Revue de l’OFCE* N° 104, January 2008.

Conference Presentations and Invitations

- November 2023: ABM4Policy workshop, Bank of England. Presentation of “Bayesian estimation of a large-scale macroeconomic agent-based model”.
- July 2023: CEF conference, Nice. Invitation to deliver a pre-conference workshop with Dr Francesco Lamperti: “Agent-based Models: Methodology, Calibration and Estimation” and presentation of “Bayesian estimation of a large-scale macroeconomic agent-based model”.
- November 2022: ABM4Policy workshop, Pisa. Presentation of “Bayesian Estimation of Large-Scale Simulation Models with Gaussian Process Regression Surrogates”.
- June 2022: CEF conference, Dallas. Presentation of “Bayesian estimation of a large-scale macroeconomic agent-based model”.
- June 2021: WEHIA conference (Online). Presentation of “Beggars Can’t Be Choosers: Surrogate Estimation of Large-Scale Macroeconomic Agent-Based Models”.
- June 2021: CEF conference (Online). Presentation of “Beggars Can’t Be Choosers: Surrogate Estimation of Large-Scale Macroeconomic Agent-Based Models”.
- Sept 2019: EAEPE conference, Warsaw: Invited panellist for a round table session “Agent-based modelling in macroeconomics and finance: issues, problem and possible futures”.
- June 2019: CEF conference, Ottawa. Presentation of “From kernels to trees: accuracy and precision in model selection from simulated data”
- June 2019: WEHIA conference, London. Presentation of “Macroeconomic Agent-Based Model comparison with a multivariate extension of the Markov Information Criterion” (*JEDC* 2020).
- November 2018: Invitation to the Institute for New Economic Thinking (INET) at the University of Oxford. Presentation of “Macroeconomic Agent-Based Model comparison with a multivariate extension of the Markov Information Criterion” (*JEDC* 2020).
- June 2018: CEF conference, Milan. Presentation of “Macroeconomic Agent-Based Model comparison with a multivariate extension of the Markov Information Criterion” (*JEDC* 2020).
- July 2017: CEF conference, New York. Invitation to a special session on “Regime Switching, Econometrics of Behavioral Macro and Agent Based Models” organised by Marco Groß. Presentation of work in progress with Sander van der Hoog “Empirical Validation of the Eurace@Unibi Model”.
- June 2017: WEHIA conference, Milan. Presentation of “A multivariate information criterion for Markov models” (*JEDC* 2020).
- June 2016: CEF conference, Bordeaux. Presentation of “An Empirical Validation of a Large-Scale Agent-Based Macroeconomic Model”.
- June 2016: WEHIA conference, Castellón. Presentation of work in progress with Sander van der Hoog: “An Empirical Validation of a Large-Scale Agent-Based Macroeconomic Model”.
- April 2016: Invitation to the Economics Department at the University of Bielefeld. Presentation of “The Markovian Information Criterion : theory, implementation and practical applications” (*Computational Economics* 2017 and *JEDC* 2016).
- December 2015: CFE conference, London. Presentation of “A fast algorithm for finding the confidence set of large collections of models”.

- July 2015: CEF conference, Taipei. Presentation of “Direct calibration and comparison of agent-based herding models of financial market” (*Journal of Economic Dynamics and Control* 2016).
- May 2015: WEHIA conference, Nice. Presentation of “A practical, universal, information criterion over N^{th} order Markov processes” (*Computational Economics* 2017).
- June 2014: CEF conference, Oslo. Presentation of “A Universal Information Criterion”.
- December 2013: CFE conference, London. Presentation of “A Universal Information Criterion”.
- June 2013 : WEHIA conference, Reykjavik. Presentation of “A Class-Free Information Criterion”.
- June 2012 : CEF conference, Prague. Presentation of the “Back to the future: economic rationality and maximum entropy prediction” working paper (*Computational Economics* 2015).
- June 2012 : WEHIA conference, Paris. Presentation of “Of Ants and Voters: Maximum Entropy prediction of agent-based models with recruitment”.
- June 2012 : OFCE workshop on new advances in Agent-Based Models, Paris. Presentation of “Of Ants and Voters: Maximum Entropy prediction of agent-based models with recruitment”.
- June 2011 : WEHIA conference, Ancona. Presentation of the “Back to the Future: A Simple Solution to Schelling Segregation” working paper.
- June 2011 : Invitation to the Department for Research on Innovation and Competition at OFCE. Presentation of the “Ignorance is bliss” and “Back to the future: working papers”.
- June 2010: WEHIA conference, Alessandria. Presentation of the “The Google thought experiment: rationality, information and equilibrium in an exchange economy” working paper.
- March 2010 : Invitation to Sciences-Po economics department, Paris; Presentation of work in progress with Stein Østbye (microfoundations of knowledge spillovers in spatial models).
- January 2010 : Invitation to GREQAM, Marseille. Presentation of the “Google thought experiment: rationality, information and equilibrium in an exchange economy” working paper.
- August 2009 : ERSA conference, Lodz. Presentation of the “Generalised Variable Elasticity of Substitution Model of New Economic Geography” working paper.
- August 2008 : ERSA conference, Liverpool. Presentation of “Knowledge spillovers, black holes and the equilibrium location of vertically linked industries” (*Journal of Economic Geography* 2010) and “The spatial structure of French wages” (*Spatial Economic Analysis* 2010).
- May 2008 : Invitation to the Department of Economics, University of Tromsø, Norway. Presentation of “Knowledge spillovers, black holes and the equilibrium location of vertically linked industries” (*Journal of Economic Geography* 2010).

External Reviewer

Journal of Economic Dynamics and Control, Journal of Economic Behaviour & Organisation, Journal of Economic Interaction and Coordination, Journal of Economic Geography, Journal of Urban Economics, Journal of Regional Science, Papers in Regional Science, Spatial Economic Analysis, Economics Letters, Economic Modelling, Revue de l'OFCE

Undergraduate Teaching

2019–current:	Stage 1 Mathematics for Economics, Statistics for Economics, University of Kent.
2014–2020:	Stage 3 Economics Dissertation, University of Kent.
2012–2018:	Stage 1 Professional Economics, University of Kent.
2010–2013:	Stage 1 Microeconomics for Business, University of Kent.

2007–2010: Principles of Economics (micro and macroeconomics), Sciences-Po, Menton Campus.

2003–2007: Teaching assistant - Stage 1 Economics, University of Kent.

Graduate Teaching

2015–current: Computational methods with Matlab, PhD training module, University of Kent.

2007–2009: Issues in New Economic Geography, Masters (M2) course at the Université de Nice - Sophia Antipolis.

Completed research supervisions

2017–2023: Dr Rowan Cherodian

Thesis: Eigenvector Spatial Filtering and Lasso: Theory and Applications

External examiner: Prof. Abhimanyu Gupta (Essex).

Current employment: Research Associate in Econometrics, School of Medicine and Population Health, University of Sheffield.

2012–2018: Dr Francesca Foliano

Thesis: Essays in Economics of Education.

External examiner: Prof. Arnaud Chevalier (Royal Holloway).

Current employment: Research Fellow, UCL Social Research Institute.

2013–2018: Dr Daniel De Araujo-Roland

Thesis: Essays on the Economics of Education and Health.

External examiner: Paul McCrone (King's College London).

Current employment: Research Associate, Personal Social Services Research Unit (PSSRU) University of Kent.

2013–2017: Dr Neha Jindal

Thesis: Essays on Internal Migration and Factor Reallocations in India.

External examiner: Prof. Douglas Gollin (University of Oxford).

Current employment: Lecturer in Economics, Lancaster University Leipzig.

2011–2016: Dr Alessandro Cusimano

Thesis: The effectiveness of local development programs in Southern Italy. A global counterfactual analysis.

External examiner: Prof. Giovanni Cerulli (CNR-IRCrES).

Current employment: Research Associate, University of Palermo.

January 25, 2025