
Contact Information

Katerina Petrova

Federal Reserve of New York

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Research Interests

Econometrics, Macroeconometrics, DSGE and VAR Models, MCMC Methods

Positions

Research Economist in the Macroeconomic and Monetary Studies Function of the Research and Statistics Group, Federal Reserve of New York
Sept 2023 –to date

Assistant Professor, Department of Economics, Universitat Pompeu Fabra
Barcelona (Graduate) School of Economics Affiliate Professor
Sept 2019 – Sept 2023 (currently on leave)

Assistant Professor, School of Economics and Finance, University of St Andrews
Sept 2016 – Aug 2019

Research Fellow, Warwick Business School, University of Warwick
Sept 2014 – May 2016

Education

PhD Economics, Queen Mary University, London

Oct 2016

MSc Economics, Queen Mary University, London

Sept 2012 (Distinction)

BA Politics, Kingston University, London

Sept 2011 (First Class Honors Degree)

1st German High School 'Prof. K. Galaboff', Sofia

Sept 2008 (Mathematics A Level Equivalent, Distinction)

Research

Publications:

1. Scalable inference for a full multivariate stochastic volatility model, with Dellaportas, Plataniotis and Titsias (*Journal of Econometrics*, 2023, Vol. **232** (2), pp. 501-520)
2. Algorithms for Proxy SVARs with time-varying parameters, with Mumtaz, (*Journal of Money, Credit and Banking*, 2023, Vol. **55**(2-3), pp. 635-654)
3. Asymptotically valid Bayesian inference in the presence of distributional misspecification and changing volatility in VAR models (*Journal of Econometrics*, 2022, Vol. **230** (1), pp. 154-182)
4. Monetary Policy across Space and Time, with Matthes and Liu (*Advances in Econometrics*, 2022, Vol. **44** Part B, pp. 37-64)
5. Time-varying co-integration and the great ratios, with Kapetanios, Millard and Price (*Economics Letters*, Vol. **193**, 2020, 109213)
6. Kernel-based Generalised Least Squares, with Kapetanios and Chronopoulos (*Econometrics and Statistics*, 2021, Vol. **20**, pp. 2-11)
7. Time-varying parameter structural model of the UK economy, with Kapetanios, Masolo and Waldron (*Journal of Economic Dynamics and Control*, 2019, Vol. **106** (103705))

8. A quasi-Bayesian nonparametric approach to time varying parameter VAR models (*Journal of Econometrics*, 2019, Vol. **212**(1), pp. 286-306)
9. Quasi-Bayesian estimation of time varying volatility in DSGE models, (*Journal of Time Series Analysis*, 2019, Vol. **40**, pp. 151-157)
10. A time varying DSGE model with financial frictions, with Galvão, Giraitis and Kapetanios (*Journal of Empirical Finance*, 2016, Vol. **38**, pp. 690–716)

Working Papers:

1. Uniform and distribution-free inference with general autoregressive processes, with Magdalinos (revise and resubmit in the *Review of Economic Studies*)
2. Classical and Bayesian inference for DSGE models with non-Gaussian shocks (submitted)
3. A quasi-Bayesian local likelihood method for modelling parameter time variation in DSGE models, with Galvão, Giraitis and Kapetanios (revise and resubmit in the *Journal of Applied Econometrics*)
4. Monetary policy through differing inflation regimes, with Gargiulo and Matthes
5. Uniform inference with higher order autoregressions, with Magdalinos
6. A Generalised Lp-norm filter for time-varying parameter models, with Kapetanios and Chronopoulos
7. Forecasting with large macroeconomic and financial datasets in the presence of structural change, with Dellaportas

Work in Progress:

1. Uniform inference in systems with mixed stochastic components, with Magdalinos
2. Time-varying IV estimator for autoregressions, with Giraitis and Magdalinos
3. Refinements on VAR models with time-varying parameters, with Mumtaz
4. Price puzzles under imperfect information, with Zachariadis

Other:

1. Forecasting with rich data: model comparison and evidence from European countries, with Kapetanios and Mazzi (chapter in the Handbook of Rapid Estimates, Eurostat, 2017)
2. Analysis of the most recent Bayesian modelling techniques for big data, with Kapetanios and Marcellino, (*Statistical Papers*, Eurostat 2018)
3. Structural change in the UK from the 19th century, with Kapetanios, Masolo and Thomas

Research Grants

ERC Starting Grant 2023, *not started*

Beatriu de Pinós Fellowship, €171,000, duration 3 years

Juan de la Cierva Grant, €105,000, duration 3 years, *awarded and declined*

International Association of Applied Econometrics, Conference Grant \$1,500, with Dimitris Korobilis

Alan Turing Institute-HSBC-ONS Economic Data Science Awards 2018, £29,167.38, with Petros Dellaportas

International Association of Applied Econometrics, Conference Grant \$1,000

Royal Economic Society, Special Project Grant Scheme, £3,500, with Oliver De Groot

Bank of England Research Grant, £2,000, with Oliver De Groot

KE&Impact Fund, St Andrews, Small Grant, £3,510, with Oliver De Groot

Seminar Presentations

University of Bologna 2023, LSE 2023, UCL 2023, Surrey 2022 (forthcoming), Essex Business School 2022, New York Fed 2021, Princeton University 2021, Central Bank of Canada 2021, Durham Business School 2021, King's College 2020, 17th Barcelona GSE Trobada 2019, University of California San Diego 2019, Tilburg University 2019, University of Bologna 2019, Erasmus Universiteit Rotterdam 2019, Federal Reserve Board 2018, European Central Bank 2018, Bank of Ireland 2018, King's College London 2018, Queen Mary University London 2018, Bank of England 2015, University of Surrey 2015, Warwick University 2014

Conference Presentations

Conference on Research on Economic Theory & Econometrics, Tinos, 2022; 2nd Italian Workshop on Econometrics and Empirical Economics, 2020; Machine Learning Workshop, Barcelona Graduate School of Economics, 2019; Econometrics Workshop, Federal Reserve of St Louis, 2018; Workshop on Machine Learning and Econometrics, CEMMAP, 2018; European Seminar on Bayesian Econometrics, Ca'Foscari University of Venice, Italy, 2016; Workshop Time Variation and Nonlinear Models in Econometrics and Macro, Bank of England, 2016; Big Data in Predictive Dynamic Economic Modelling, University of Pennsylvania, 2017; Royal Economic Society Conference, University of Bristol, 2017; Time-varying Models for Macro Policy and Financial Stability, European University Institute, 2017; Conference on Computational Finance and Econometrics, Seville, 2016; International Association for Applied Econometrics, Annual Conference, Milan, 2016; Conference on Computational Finance and Econometrics, Invited Session, London, 2015; Conference on Research on Economic Theory & Econometrics, Chania, 2015; International Association for Applied Econometrics, Annual Conference, Thessaloniki, 2015; Workshop on Time Varying Parameter Models, European University Institute, 2015; Computational Finance and Econometrics, Invited Session on Macro and Forecasting, 2014; Financial Econometrics and Empirical Finance Conference, Essex University, 2014; BMRC-DEMS Conference on Macro and Financial Econometrics, Brunel University, 2014; International Association for Applied Econometrics, Annual Conference, London, 2014; Judgement and Combination in Forecasting and Policy Models, Bank of England, 2014; Conference on Computational Finance and Econometrics, London, 2013; Conference on Bayesian Econometrics, University of Bologna, Rimini, Italy, 2012

Refereeing Activity

Review of Economic Studies, Journal of Econometrics, Journal of the Royal Statistical Society, Journal of Business and Economic Statistics, Journal of Economic Dynamics and Control, Journal of Applied Econometrics, Econometrics Journal, International Journal of Forecasting, Journal of Macroeconomics, Macroeconomic Dynamics, Economic Modelling, Journal of Forecasting

Consultancy/ Editorial Activity

Associate Editor, *Journal of Time Series Analysis*, 2022 – to date
External Examiner, UCL, 2019 – to date
Consultant, Central Bank of Ireland, 2019 - 2020
Consultant, European Central Bank, Apr 2018 – Sept 2019
Consultant, Bank of England, 2015 – 2018
Consultant, EuroStat, Jan 2017 – Jan 2018

Teaching

- Advanced Econometric Methods III, Barcelona School of Economics, PhD course, 2020 – 2023
- Advanced Techniques in Macroeconomics III, PhD course, 2022
- Econometrics 25117, Universitat Pompeu Fabra, 2019 - 2023
- EC5203: Econometric Methods and Applications, University of St Andrews, 2016
- EC5221: Econometric Time Series Analysis, University of St Andrews, 2017-2018
- EC5609: Financial Econometrics, University of St Andrews, 2016-2018
- Econometrics B, MSc course, Queen Mary University London, 2015